

March 19, 2004

State of Utah
Division of Oil, Gas & Mining
Attn: Diana Whitney
1594 West North Temple - Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

RE: Applications for Permit to Drill: Federal 1-18-9-18 3-18-9-18, 5-18-9-18, 9-18-9-18, 11-18-9-18, 13-18-9-18, and 15-18-9-18.

# Dear Diana:

Enclosed find APD's on the above referenced wells. If you have any questions, feel free to give either Brad or myself a call.

Sincerely,

Mandie Crozier

Regulatory Specialist

mc

enclosures

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DIV. OF OIL, GAS & MINING

Form 3160-3			FORM APPRO	VED	
(September 2001)	OMB No. 1004-0136 Expires January 31, 2004				
UNITED STATES	<u> </u>	1, 2004			
DEPARTMENT OF THE IN	5. Lease Serial No.				
BUREAU OF LAND MANAG	EMENT		U-39714  6. If Indian, Allottee or To	riha Nama	
APPLICATION FOR PERMIT TO DR	ILL OR REENTER		· ·	ince ivaline	
			N/A		
1a. Type of Work: DRILL REENTER			7. If Unit or CA Agreemen		
			8. Lease Name and Well N	igne mile	
1b. Type of Well: Oil Well Gas Well Other	Single Zone 🔲 Multip	ple Zone	Federal 3-18-9-18	0.	
2. Name of Operator			9. API Well No.		
Inland Production Company			43-047-3	5581	
3a. Address	3b. Phone No. (include area code)		10. Field and Pool, or Explo	ratory	
Route #3 Box 3630, Myton UT 84052	(435) 646-3721		Eight Mile Flat		
4. Location of Well (Report location clearly and in accordance with a	ny State requirements.*)		11. Sec., T., R., M., or Blk.	and Survey or Area	
At surface NE/NW 660' FNL 1980' FWL 4432/15	Y 40.03629				
At proposed prod. zone 590 6 19 7	-109.93786		NE/NW Sec. 18, T9	S R18E	
14. Distance in miles and direction from nearest town or post office*			12. County or Parish	13. State	
Approximatley 17.6 miles southeast of Myton, Utah			Uintah	UT	
15. Distance from proposed*	16. No. of Acres in lease	17. Spacin	g Unit dedicated to this well		
location to nearest property or lease line, ft.					
(Also to nearest drig. unit line, if any) Approx. 660 f/lse, NA f/unit	1,717.32		40 Acres		
18. Distance from proposed location*	19. Proposed Depth 20. BLM/		BIA Bond No. on file		
to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 2640'	6500'	#4	1488944		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will sta	rt*	23. Estimated duration		
5090' GL	3rd Quarter 2004		Approximately seven (7) days from spud to rig release.		
	24. Attachments				
The following, completed in accordance with the requirements of Onshore	e Oil and Gas Order No.1, shall be att	ached to this	s form:		
1 Wall plat comified by a projectored grammary	A Rond to cover the	ha amaratia	ns unless covered by an existi	ng hond on file (see	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>	Item 20 above).	ne operation	is uness covered by an exist	ing bond on the (see	
3. A Surface Use Plan (if the location is on National Forest System 1	Lands, the 5. Operator certific				
SUPO shall be filed with the appropriate Forest Service Office).	o. Such other site		ormation and/or plans as may	be required by the	
26 Simbon	No. (District (Towns))		Data		
25. Signature	Name (Printed/Typed) Mandie Crozier		' Date	119/11	
Title Application of the second of the secon	1 Manaio Grozioi	-,		11/0-1	
Regulatory Specialist					
Title Regulatory Specialist Regulatory Specialist	Name (Printed/Typed)	•	Date		
I will the series	BRADLEY G	. HILL	0	5-25-04	
True The True True True True True True True Tru	ENVIRONMENTAL SC	IENTIST	m	(	
Application approval does not warrant or certify the the applicant holds le operations thereon.	gal or equitable title to those rights in	the subject	lease which would entitle the a	pplicant to conduct	

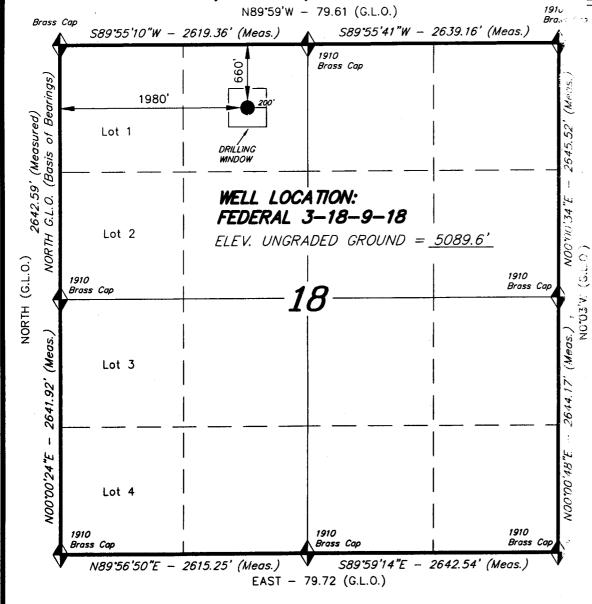
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

Conditions of approval, if any, are attached.

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# T9S, R18E, S.L.B.&M.



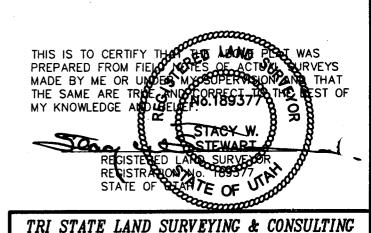


= SECTION CORNERS LOCATED

BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD (PARIETTE DRAW SW)

# INLAND PRODUCTION COMPANY

WELL LOCATION, FEDERAL 3-18-9-18, LOCATED AS SHOWN IN THE NE 1/4 NW 1/4 OF SECTION 18, T9S, R18E, S.L.B.&M. UINTAH COUNTY, UTAH.



180 NORTH VERNAL AVE. - VERNAL, UTAH 84078 (435) 781-2501

SCALE: 1" = 1000'

DATE: 10-16-03

NOTES:

SURVEYED BY: D.J.S.

DRAWN BY: J.R.S.

FILE #

# INLAND PRODUCTION COMPANY FEDERAL #3-18-9-18 NE/NW SECTION 18, T9S, R18E UINTAH COUNTY, UTAH

# ONSHORE ORDER NO. 1

# **DRILLING PROGRAM**

# 1. GEOLOGIC SURFACE FORMATION:

Uinta formation of Upper Eocene Age

# 2. <u>ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:</u>

Uinta 0' - 1640' Green River 1640' Wasatch 5700'

## 3. <u>ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:</u>

Green River Formation 1640' - 6500' - Oil

## 4. PROPOSED CASING PROGRAM

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

### 5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Please refer to the Monument Butte Field SOP. See Exhibit "C".

# 6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:

Please refer to the Monument Butte Field SOP.

### 7. AUXILIARY SAFETY EQUIPMENT TO BE USED:

Please refer to the Monument Butte Field SOP.

# 8. <u>TESTING, LOGGING AND CORING PROGRAMS:</u>

Please refer to the Monument Butte Field SOP.

# 9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:

The anticipated maximum bottom hole pressure is 2000 psi. It is not anticipated that abnormal temperatures will be encountered.

# 10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:

Please refer to the Monument Butte Field SOP.

# INLAND PRODUCTION COMPANY FEDERAL #3-18-9-18 NE/NW SECTION 18, T9S, R18E UINTAH COUNTY, UTAH

# ONSHORE ORDER NO. 1

# MULTI-POINT SURFACE USE & OPERATIONS PLAN

# 1. <u>EXISTING ROADS</u>

See attached Topographic Map "A"

To reach Inland Production Company well location site Federal #3-18-9-18 located in the NE 1/4 NW 1/4 Section 18, T9S, R18E, Uintah County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.6 miles  $\pm$  to the junction of this highway and UT State Hwy 53; proceed southeasterly along Hwy 53 - 11.7 miles  $\pm$  to it's junction with an existing road to the southeast; proceed southeasterly -3.6 miles  $\pm$  to it's junction with an existing road to the east; proceed northeasterly -0.4 miles  $\pm$  to it's junction with an existing road to the southeast; proceed southeasterly -0.3 miles  $\pm$  to it's junction with the beginning of the proposed access road; proceed easterly along the proposed access road -1,225'  $\pm$  to the proposed well location.

## 2. PLANNED ACCESS ROAD

See Topographic Map "B" for the location of the proposed access road.

## 3. LOCATION OF EXISTING WELLS

Refer to Exhibit "B".

## 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

Please refer to the Monument Butte Field Standard Operating Procedure (SOP).

# 5. LOCATION AND TYPE OF WATER SUPPLY

Please refer to the Monument Butte Field SOP. See Exhibit "A".

# 6. SOURCE OF CONSTRUCTION MATERIALS

Please refer to the Monument Butte Field SOP.

# 7. METHODS FOR HANDLING WASTE DISPOSAL

Please refer to the Monument Butte Field SOP.

### 8. ANCILLARY FACILITIES

Please refer to the Monument Butte Field SOP.

# 9. WELL SITE LAYOUT

See attached Location Layout Diagram.

# 10. PLANS FOR RESTORATION OF SURFACE

Please refer to the Monument Butte Field SOP.

# 11. SURFACE OWNERSHIP - Bureau Of Land Management

# • 12. OTHER ADDITIONAL INFORMATION

The Archaeological Resource Survey and Paleontological Resource Survey for this area are attached. MOAC Report #03-82, 1/12/04. Paleontological Resource Survey prepared by, Wade E. Miller, 7/28/03. See attached report cover pages, Exhibit "D".

Inland Production Company requests a 50' ROW for the Federal #3-18-9-18 to allow for construction of a 6" gas gathering line, and a 3" poly fuel gas line. Both lines will tie in to the existing pipeline infrastructure. Refer to Topographic Map "C." For a ROW plan of development, please refer to the Monument Butte Field SOP.

Inland Production Company also requests a 50' ROW be granted for the Federal #3-18-9-18 to allow for construction of a 3" steel water injection line and a 3" poly water return line. Refer to Topographic Map "C." For a ROW plan of development, please refer to the Monument Butte Field SOP.

### Water Disposal

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Inland's secondary recovery project.

Water not meeting quality criteria, is disposed at Inland's Pariette #4 disposal well (Sec. 7, T9S R19E) or at State of Utah approved surface disposal facilities.

### Reserve Pit Liner

Please refer to the Monument Butte Field SOP.

# Location and Reserve Pit Reclamation

Please refer to the Monument Butte Field SOP.

The following seed mixture will be used on the topsoil stockpile, to the recontoured surface of the reserve pit, and for final reclamation: (All poundages are in pure live seed)

ShadscaleAtriplex confertifolia4 lbs/acreScarlet globmallowSphaeralcea conccinea4 lbs/acreGalleta grassHilaria jamesii4 lbs/acre

### Details of the On-Site Inspection

The proposed Federal #3-18-9-18 was on-sited on 7/23/03. The following were present; Brad Mecham (Inland Production), Byron Tolman (Bureau of Land Management), and SWCA representatives. Weather conditions were clear @ 80 degrees.

# 13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

### Representative

Name:

Brad Mecham

Address:

Route #3 Box 3630

Myton, UT 84052

Telephone:

(435) 646-3721

# Certification

Please be advised that INLAND PRODUCTION COMPANY is considered to be the operator of well #3-18-9-18 NE/NW Section 18, Township 9S, Range 18E: Lease U-39714 Uintah County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4488944.

I hereby certify that the proposed drillsite and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Inland Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

3/19/04

Date

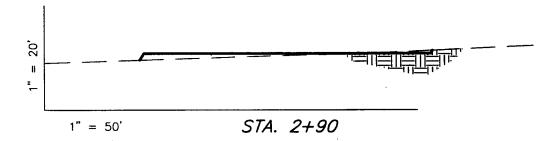
Mandie Crozier Regulatory Specialist

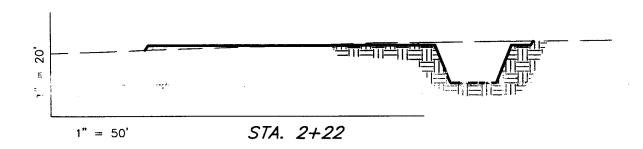
# INLAND PRODUCTION COMPANY FEDERAL 3-18-9-18 Section 18, T9S, R18E, S.L.B.&M. C/0.1 F/1.4 STA. 2+90 PIT TOPSOIL Toe of 2' Birm Around C/0.7 Fill Slope C/0.5 Fill Portion of Location *50'* STA. 2+22 RESERVE C/0.9 F/0.6 120' (1) STA. 1+60 (D) **EXCESS** MA TERIAL WELL HEAD: UNGRADED = 5089.6' FIN. GRADE = 5088.7' TOPSOIL STOCKPILE Top of Cut Slope ப **C/1.9** 6 STA. 0+00 C/0.7 REFERENCE POINTS 180' EAST = 5088.0'PROPOSED ACCESS ROAD (Max. 6% Grade) 230' EAST = 5087.7'170' NORTH = 5087.4'220' NORTH = 5087.0'Tri State Land Surveying, Inc. 180 NORTH VERNAL AVE. VERNAL, UTAH 84078 SCALE: 1'' = 50'SURVEYED BY: D.J.S. 10-16-03 DRAWN BY: J.R.S. DATE:

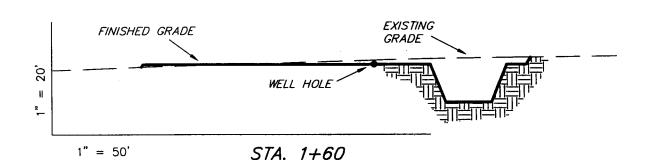
# INLAND PRODUCTION COMPANY

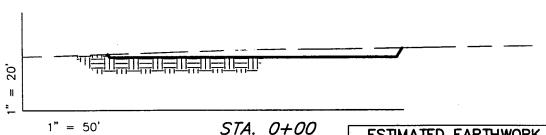
# CROSS SECTIONS

# FEDERAL 3-18-9-18









NOTE: UNLESS OTHERWISE NOTED ALL CUT/FILL SLOPES ARE AT 1.5:1

# ESTIMATED EARTHWORK QUANTITIES (No Shrink or swell adjustments have been used) (Expressed in Cubic Yards) ITEM CUT FILL 6" TOPSOIL EXCESS

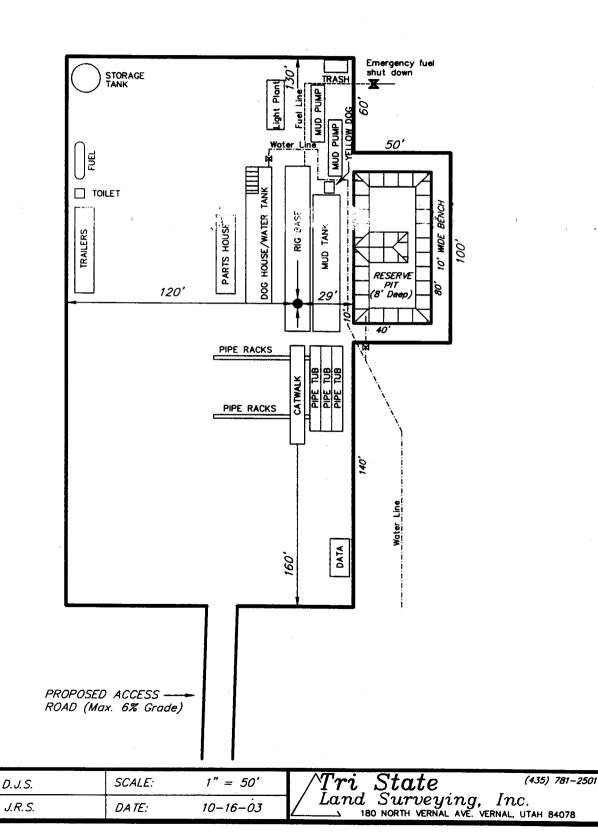
L				
ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	540	540	Topsoil is not included	0
PIT	640	0	in Pad Cut	640
TOTALS	1,180	540	890	640

SURVEYED BY:	D. J. S.	SCALE:	1" = 50'
DRAWN BY:	J.R.S.	DATE:	10-16 <b>-</b> 03

/Tri State (435) 781-2501
Land Surveying, Inc.
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

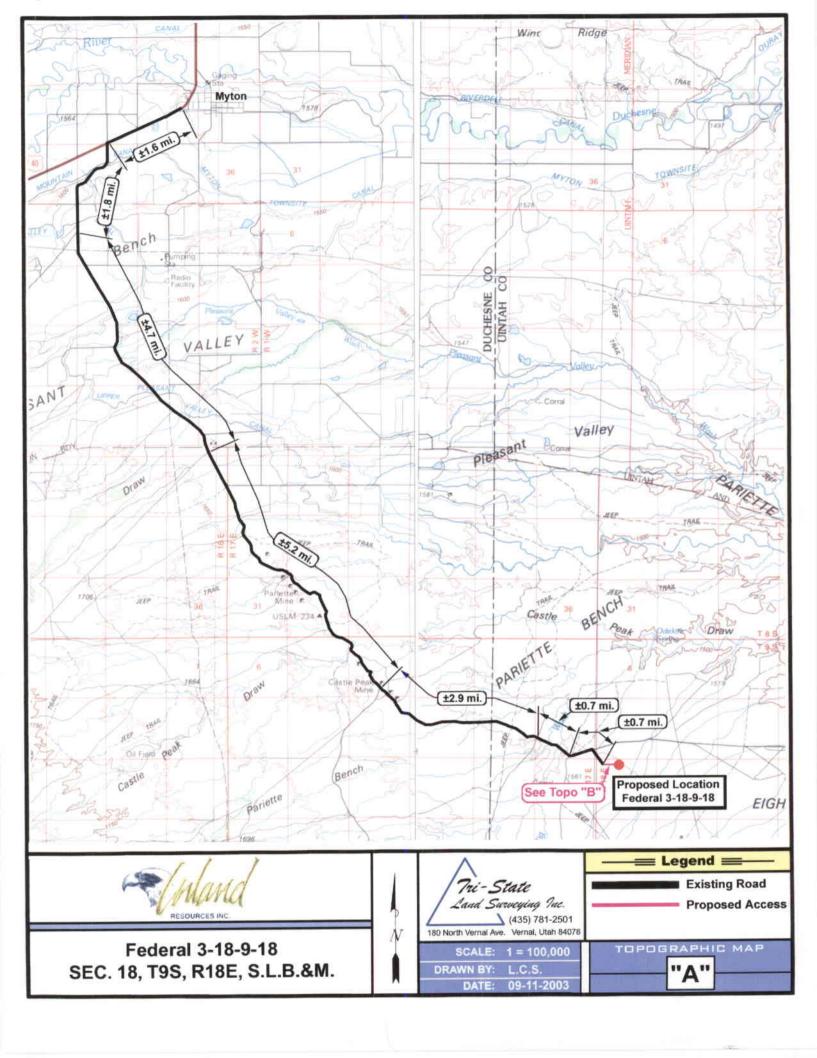
# INLAND PRODUCTION COMPANY

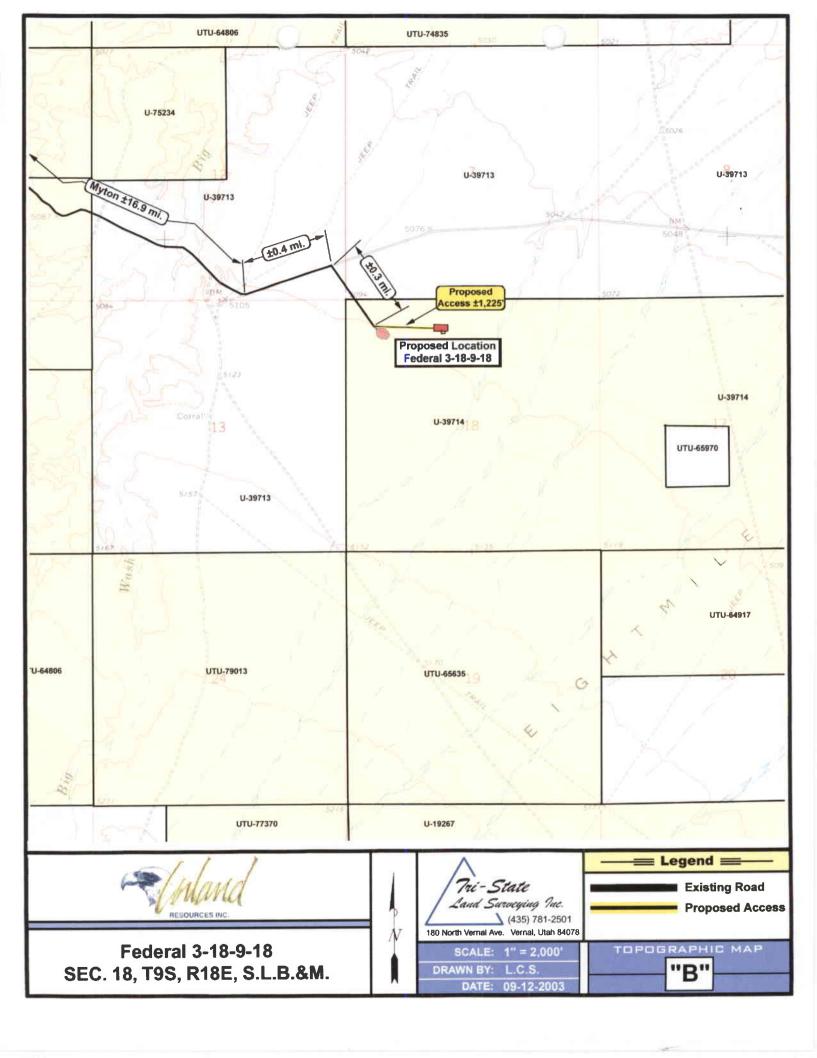
# TYPICAL RIG LAYOUT FEDERAL 3-18-9-18

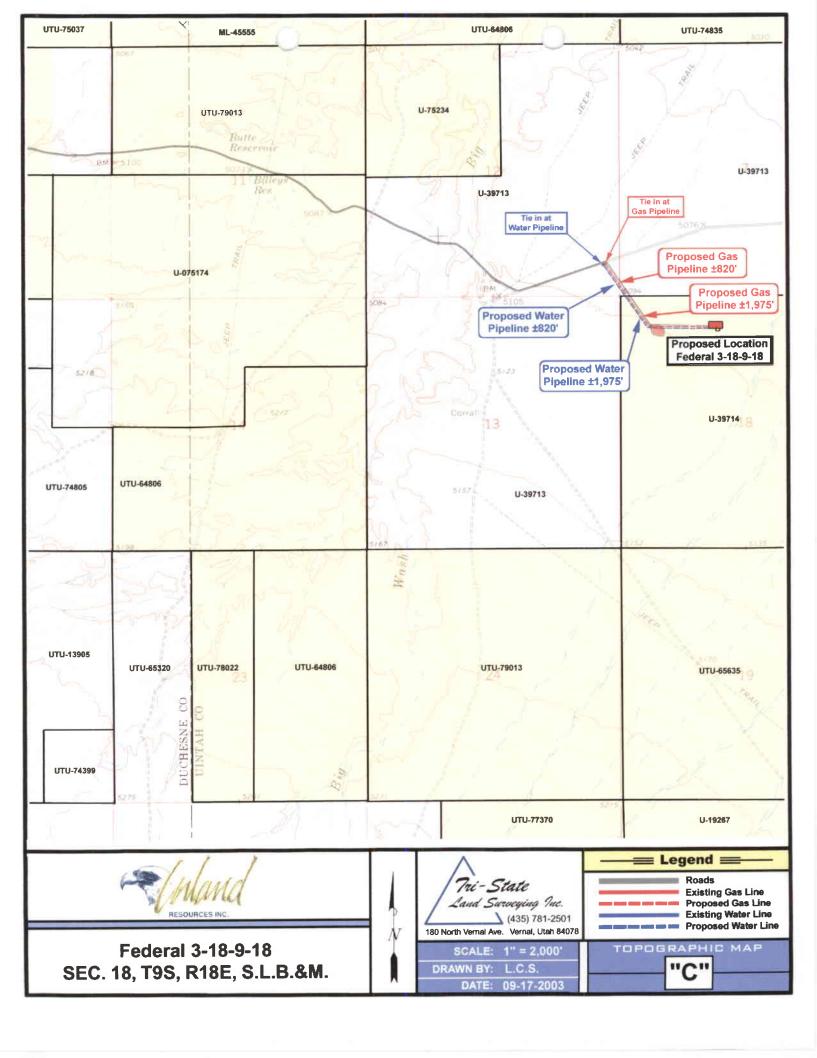


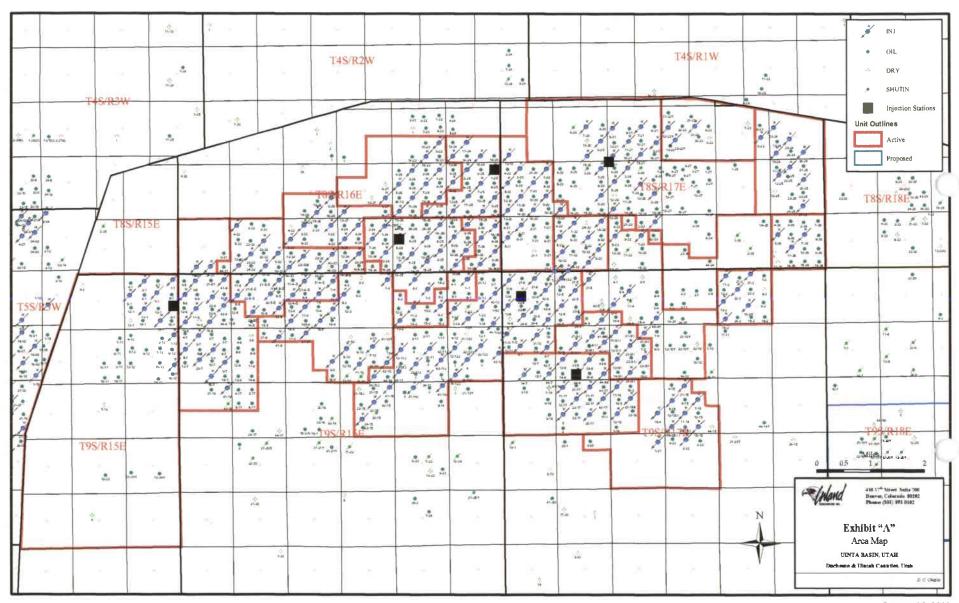
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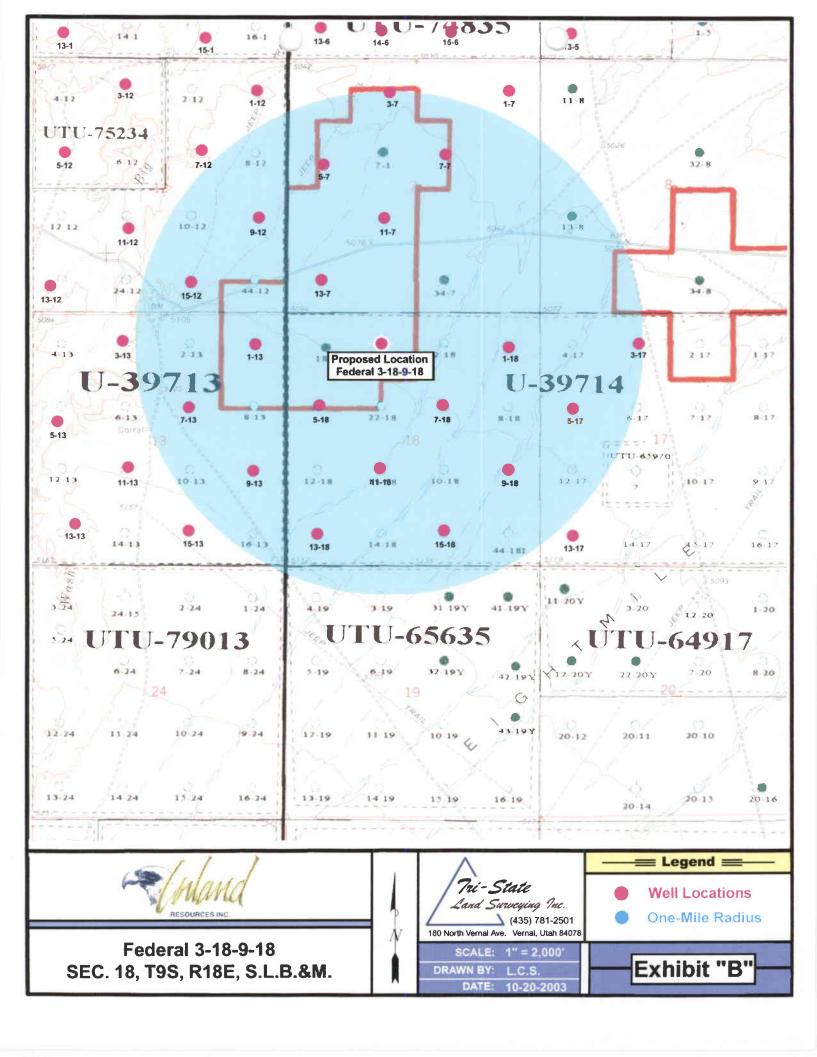
DRAWN BY:





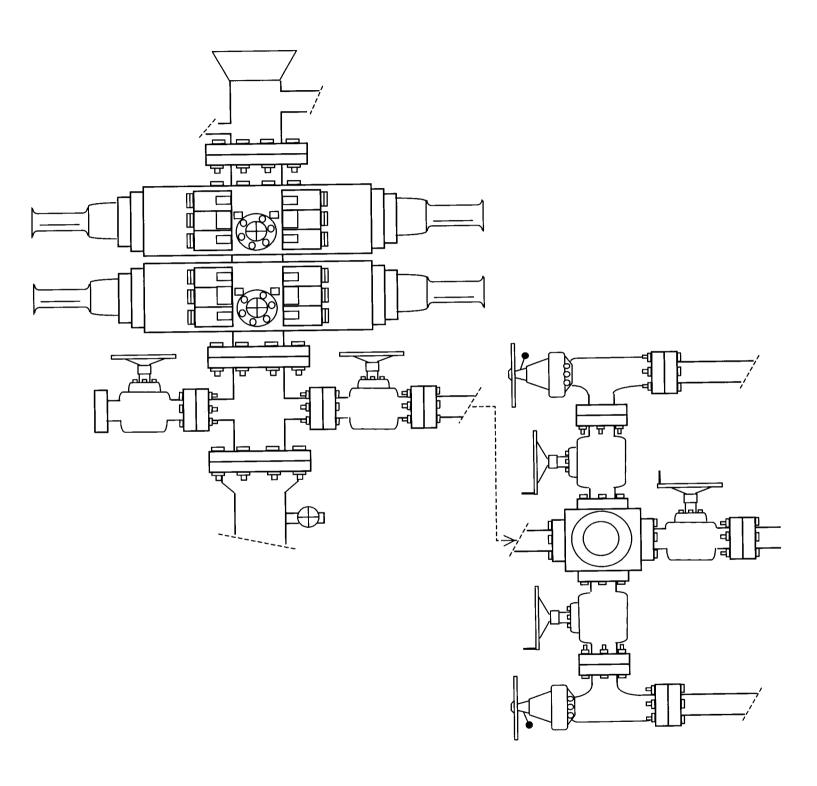






# 2-M SYSTEM

# Blowout Prevention Equipment Systems



**EXHIBIT C** 

Exhibit "D"
page 1

CULTURAL RESOURCE INVENTORY OF INLAND PRODUCTIONS' PARCEL IN T 9 S, R17 E, SEC. 13, 14, 15, 23, & 24 AND T 9 S, R 18 E. SEC. 18 & 19, DUCHESNE AND UINTAH COUNTIES, UTAH

BY:

Katie Simon and Keith R. Montgomery

Prepared For:

Bureau of Land Management Vernal Field Office

Prepared Under Contract With:

Inland Production 2507 Flintridge Place Fort Collins, CO 80521

Prepared By:

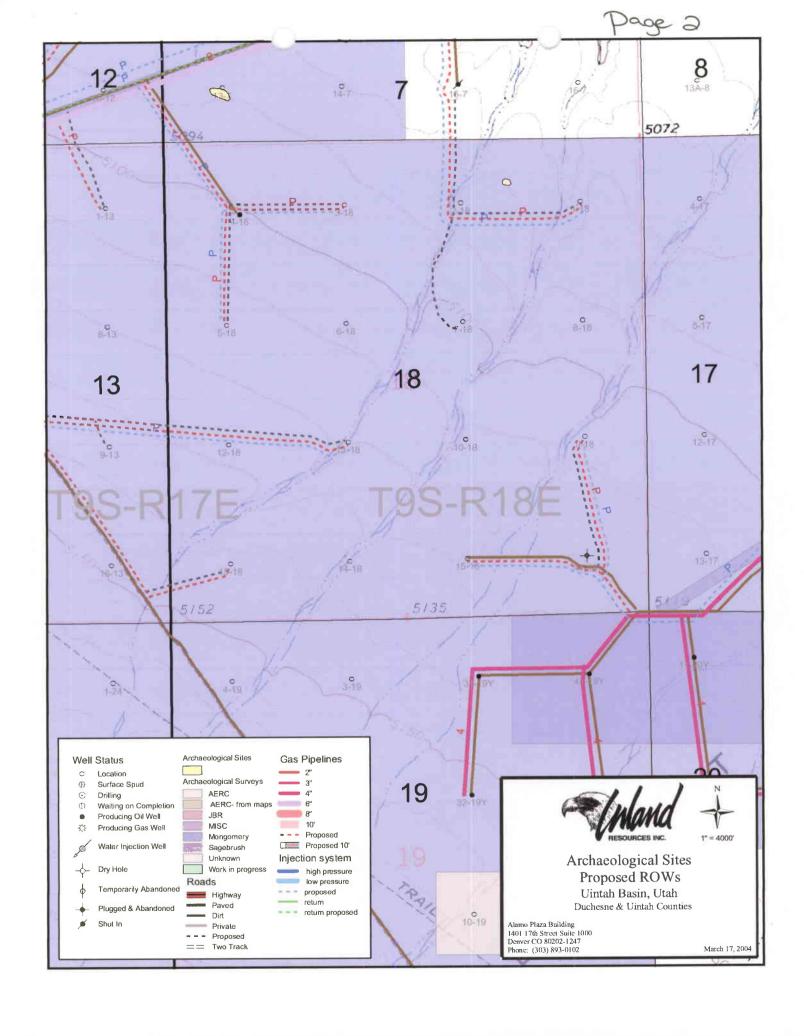
Montgomery Archaeological Consultants P.O. Box 147 Moab, Utah 84532

MOAC Report No. 03-82

January 12, 2004

United States Department of Interior (FLPMA)
Permit No. 03-UT-60122

State of Utah Antiquities Project (Survey)
Permit No. U-03-MQ-0750b



# INLAND RESOURCES, INC.

# PALEONTOLOGICAL FIELD SURVEY OF PROPOSED PRODUCTION DEVELOPMENT AREAS, DUCHESNE AND UINTAH COUNTIES, UTAH

(Section 35, T 8 S, R 17 E; Sections 13, 14, 23, 24, T 9 S, R 17 E; NE 1/4, NE 1/4, Section 15, T 9 S, R 17 E; Sections 18, 19, T 9 S, R 18 E; Sections 2, 3, 10 and western half of Section 11, T 9 S, R 15 E)

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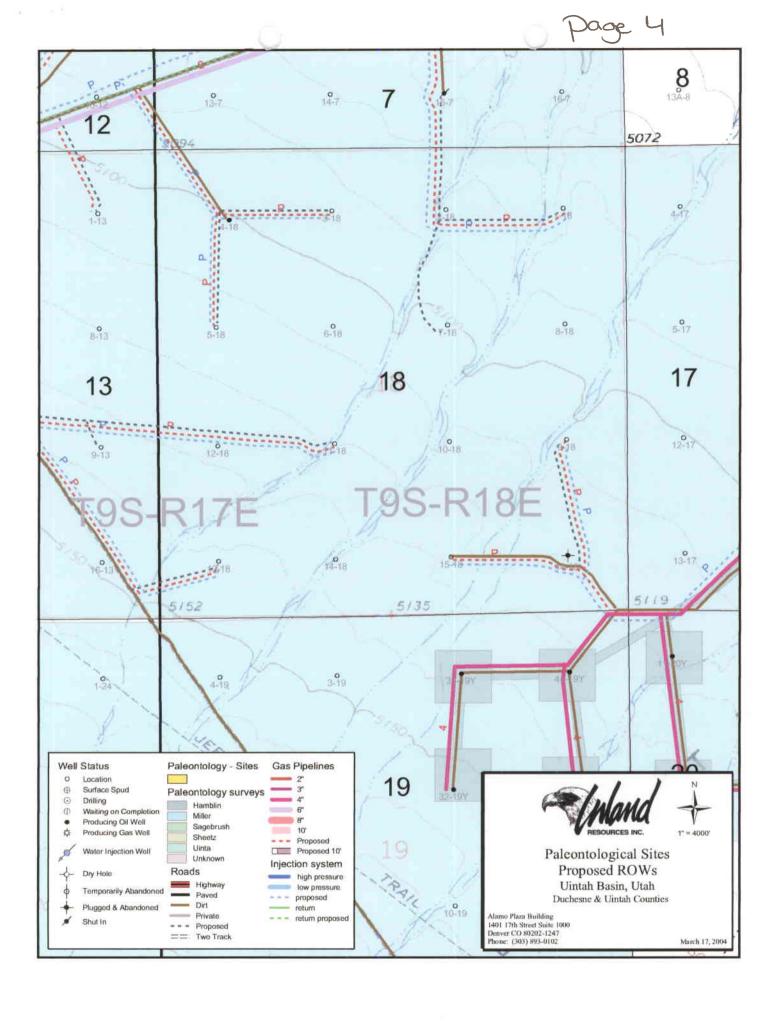
REPORT OF SURVEY

Prepared for:

Inland Resources, Inc.

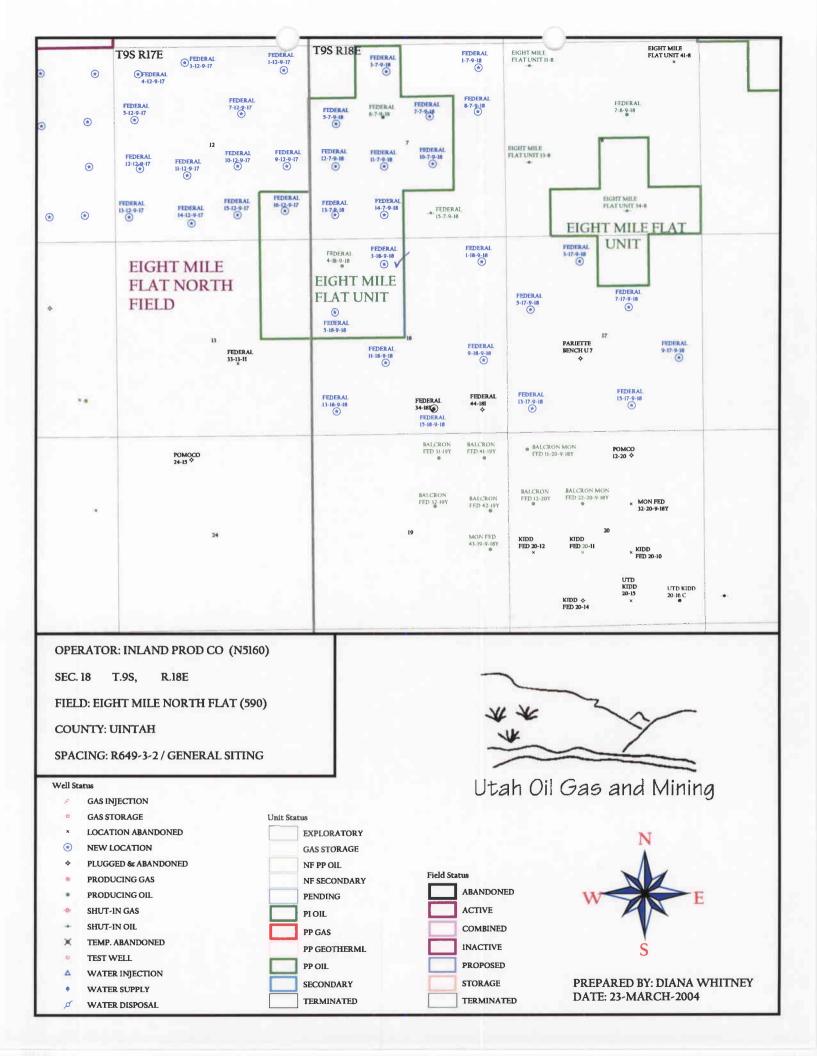
Prepared by:

Wade E. Miller Consulting Paleontologist July 28, 2003



# WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 03/22/2004	API NO. ASSIGNED: 43-047-35581
WELL NAME: FEDERAL 3-18-9-18  OPERATOR: INLAND PRODUCTION ( N5160 )  CONTACT: MANDIE CROZIER  PROPOSED LOCATION:  NENW 18 090S 180E  SURFACE: 0660 FNL 1980 FWL  BOTTOM: 0660 FNL 1980 FWL  UINTAH  8 MILE FLAT NORTH ( 590 )  LEASE TYPE: 1 - Federal  LEASE NUMBER: U-39714  SURFACE OWNER: 1 - Federal  PROPOSED FORMATION: GRRV  COALBED METHANE WELL? NO	PHONE NUMBER: 435-646-3721  INSPECT LOCATN BY: / /  Tech Review Initials Date  Engineering  Geology  Surface  LATITUDE: 40.03629  LONGITUDE: 109.93786
RECEIVED AND/OR REVIEWED:  Plat  Bond: Fed[1] Ind[] Sta[] Fee[]  (No. 4488944 )  N Potash (Y/N)  N Oil Shale 190-5 (B) or 190-3 or 190-13  Water Permit  (No. MUNICIPAL )  N RDCC Review (Y/N)  (Date: )  NA Fee Surf Agreement (Y/N)	LOCATION AND SITING:  R649-2-3.  Unit EIGHT MILE FLAT  R649-3-2. General
S.P. Siperate fill,  Stipulations: 1. Educa approved  2. Spacing Stip	



002

# United States Department of the Interior

# **BUREAU OF LAND MANAGEMENT**

Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

March 23, 2004

### Memorandum

To:

Assistant District Manager Minerals, Vernal District

From:

Michael Coulthard, Petroleum Engineer

Subject:

2004 Plan of Development Eight Mile Flat

Unit, Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2004 Within the Eight Mile Flat Unit, Uintah County, Utah.

API#

WELL NAME

LOCATION

(Proposed P2 Green River)

43-047-35581 Federal 3-18-9-18 Sec 8 T095 R18E 0660 FNL 1980 FWL 43-047-35582 Federal 5-18-9-18 Sec 8 T098 R182 1980 FNL 0660 FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

**RECEIVED** MAR 2 3 2004

DIV. OF OIL, GAS & MINING

bcc: File - Eight Mile Flat Unit Division of Oil Gas and Mining

Agr. Sec. Chron Fluid Chron

MCoulthard:mc:3-23-04

Post-it" Fax Note 7671



Department of Natural Resources

Division of Oil, Gas & Mining

ROBERT L. MORGAN Executive Director

LOWELL P. BRAXTON Division Director March 23, 2004

Inland Production Company Rt. #3, Box 3630 Myton, UT 84052

Re:

Federal 3-18-9-18 Well, 660' FNL, 1980' FWL, NE NW, Sec. 18, T. 9 South,

R. 18 East, Uintah County, Utah

# Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-35581.

Sincerely,

John R. Baza
Associate Director

pab Enclosures

cc: Uintah County Assessor

Bureau of Land Management, Vernal District Office

Operator:	Inland Production Company				
Well Name & Number	Name & Number Federal 3-18-9-18				
API Number:	43-047-35581				
Lease:	U-39714				
Location: <u>NE NW</u>	Sec. 18	T. 9 South	R. 18 East		

# **Conditions of Approval**

### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

# 2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

Contact Dan Jarvis at (801) 538-5338

# 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
- 5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

FORM 3160-5 (June 1990)

# TITED STATES DEPAR'TMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

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_	_				

Budget E	Bureau No.	1004-01
Expires:	March 31,	1993

006

5. Lease Designation and Serial No. SUNDRY NOTICES AND REPORTS ON WELLS UTU-39714 Do not use this form for proposals to drill or to deepen or reentry a different reservoir. 6. If Indian, Allottee or Tribe Name Use "APPLICATION FOR PERMIT -" for such proposals NA 7. If Unit or CA, Agreement Designation SUBMIT IN TRIPLICATE N/A 1. Type of Well 8. Well Name and No. Oil Gas FEDERAL 3-18-9-18 Well Well 9. API Well No. 43-047-35581 2. Name of Operator 10. Field and Pool, or Exploratory Area NEWFIELD PRODUCTION COMPANY **EIGHT MILE FLAT NORTI** 3. Address and Telephone No. Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721 11. County or Parish, State 4. Location of Well (Footage, Sec., T., R., m., or Survey Description) **UINTAH COUNTY, UT.** 660 FNL 1980 FWL NE/NW Section 18, T9S R18E

12. CHECK APPROP	RIATE BOX(s) TO INDICATE NATURE					
TYPE OF SUBMISSIO	N	TYPE OF ACTION				
X Notice of Intent Subsequent Repo Final Abandonme	casing Repair nt Notice Altering Casing		Change of Plans New Construction Non-Routine Fracturing Water Shut-Off Conversion to Injection Dispose Water Report results of multiple completion on Well tion or Recompletion Report and Log form.)			

Newfield Production Company requsts to extend the Permit to Drill this well for one year. The original approval date was 3/23/04 (expiration 3/23/05).

> Approved by the Utah Division of Oil, Gas

**RECEIVED** MAR 0 8 2005

DIV. OF OIL, GAS & MINING

Signed  Mandie Crozier	Title	Regulatory Specialist	Date	3/7/2005
CC: UTAH DOGM				
(This space for Federal or State office use)  Approved by	_ Title		Date	
Conditions of approval, if any: CC: Utah DOGM				445

<sup>13.</sup> Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

RESET

# Application for Permit to Drill Request for Permit Extension

Validation (this form should accompany the Sundry Notice requesting permit extension)

API: 43-047-35581  Well Name: Federal 3-18-9-18  Location: NE/NW Section 18, T9S R18E  Company Permit Issued to: Newfield Production Company  Date Original Permit Issued: 3/23/2004
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.
Following is a checklist of some items related to the application, which should be verified.
If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes□No□
Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes \subseteq No
Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes□Nov
Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes \subseteq No \frac{1}{2}.
Has the approved source of water for drilling changed? Yes□NoX
Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes□No□No□No□No□No□No□No□No□No□No□No□No□No□
Is bonding still in place, which covers this proposed well? Yes No□
Signature 3/7/2005  Date
Title: Regulatory Specialist
Representing: Newfield Production Company



# Office of the Secretary of State

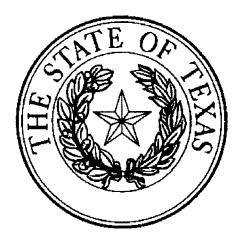
The undersigned, as Secretary of State of Texas, does hereby certify that the attached is a true and correct copy of each document on file in this office as described below:

Newfield Production Company Filing Number: 41530400

Articles of Amendment

September 02, 2004

In testimony whereof, I have hereunto signed my name officially and caused to be impressed hereon the Seal of State at my office in Austin, Texas on September 10, 2004.





Secretary of State

# ARTICLES OF AMENDMENT TO THE ARTICLES OF INCORPORATION OF INLAND PRODUCTION COMPANY

**FILLU** In the Office of the Secretary of State of Texas

SEP 02 2004

Corporations Section

· Pursuant to the provisions of Article 4.04 of the Texas Business Corporation Act (the "TBCA"), the undersigned corporation adopts the following articles of amendment to the articles of incorporation:

### ARTICLE 1 - Name

The name of the corporation is Inland Production Company.

# ARTICLE 2 - Amended Name

The following amendment to the Articles of Incorporation was approved by the Board of Directors and adopted by the shareholders of the corporation on August 27, 2004.

The amendment alters or changes Article One of the Articles of Incorporation to change the name of the corporation so that, as amended, Article One shall read in its entirety as follows:

"ARTICLE ONE - The name of the corporation is Newfield Production Company."

ARTICLE 3 - Effective Date of Filing

This document will become effective upon filing.

The holder of all of the shares outstanding and entitled to vote on said amendment has signed a consent in writing pursuant to Article 9.10 of the TBCA, adopting said amendment, and any written notice required has been given.

IN WITNESS WHEREOF, the undersigned corporation has executed these Articles of Amendment as of the 1st day of September, 2004.

INLAND RESOURCES INC.

By: Susan G. Riggs, Treasurer



# **United States Department of the Interior**



# BUREAU OF LAND MANAGEMENT Utah State Office P.O. Box 45155 Salt Lake City, UT 84145-0155 http://www.blm.gov

IN REPLY REFER TO: 3106 (UT-924)

September 16, 2004

Memorandum

To:

Vernal Field Office

From:

Acting Chief, Branch of Fluid Minerals

Subject:

Merger Approval

Attached is an approved copy of the name change recognized by the Utah State Office. We have updated our records to reflect the merger from Inland Production Company into Newfield Production Company on September 2, 2004.

Milas Lloadas

Michael Coulthard Acting Chief, Branch of Fluid Minerals

# Enclosure

1. State of Texas Certificate of Registration

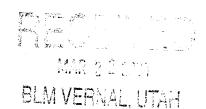
cc:

MMS, Reference Data Branch, James Sykes, PO Box 25165, Denver CO 80225 State of Utah, DOGM, Attn: Earlene Russell, PO Box 145801, SLC UT 84114

Teresa Thompson Joe Incardine

Connie Seare

		and the second second			
UTSL-	15855	61052	73088	76561	
071572A	16535	62848	73089	76787	
065914	16539	63073B	73520A	76808	
, i	16544	63073D	74108	76813	
	17036	63073E	74805	76954	63073X
	17424	63073O	74806	76956	63098A
	18048	64917	74807	77233	68528A
UTU-	18399	64379	74808	77234	72086A
	19267	64380	74389	77235	72613A
02458	26026A	64381	74390	77337	73520X
03563	30096	64805	74391	77338	74477X
03563A	30103	64806	74392	77339	75023X
04493	31260	64917	74393	77357	76189X
05843	33992	65207	74398	77359	76331X
07978	34173	65210	74399	77365	76788X
09803	34346	65635	74400	77369	77098X
017439B	36442	65967	74404	77370	77107X
017985	36846	65969	74405	77546	77236X
017991	38411	65970	74406	77553·	77376X
017992	38428	66184	74411	77554	78560X
018073	38429	66185	74805	78022	79485X
019222	38431	66191	74806	79013	79641X
020252	39713	67168	74826	79014	80207X
020252A	39714	67170	74827	79015	81307X
020254	40026	67208	74835	79016	0130711
020255	40652	67549	74868	79017	
020309D	40894	67586	74869	79831	
022684A	41377	67845	74870	79832	
027345	44210	68105	74872	79833 <sup>,</sup>	
034217A	44426	68548	74970	79831	
035521	44430	68618	75036	79834	
035521A	45431	69060	75037	80450	
038797	47171	69061	75038	80915	
058149	49092	69744	75039	81000	
063597A	49430	70821	75075		
075174	49950	72103	75078		•
096547	50376	72104	75089		
096550	50385	72105	75090		
•	50376	72106	75234		
	50750	72107	75238		
10760	51081	72108	76239	•	
11385	52013	73086	76240		
13905	52018	73087	76241		
15392	58546	73807	76560		
			_		



Form 3160-3 (September 2001)			FORM APPI OMB No. 10 Expires Januar	04-0136
UNITED STATES DEPARTMENT OF THE IN			5. Lease Serial No.	
BUREAU OF LAND MANAG		U-39714		
↑ ↑ ♀ APPLICATION FOR PERMIT TO DE	III OR REENTER		6. If Indian, Allottee or	Tribe Name
008 APPLICATION FOR PERMIT TO DE	CLL ON NELIVIEN		N/A	
la. Type of Work: DRILL REENTER	)		7. If Unit or CA Agreem	ent, Name and No.
TO THE WORLD IN THE RECEIVED	· ·	_	N/A	
1b. Type of Well: 🖾 Oil Well 🚨 Gas Well 🚨 Other	Single Zone  Multi	ple Zone	8. Lease Name and Well Federal 3-18-9-1	
Name of Operator     Inland Production Company			9. API Well No.	3558/
3a. Address	3b. Phone No. (include area code)	1	0. Field and Pool, or Exp	loratory
Route #3 Box 3630, Myton UT 84052	(435) 646-3721		Eight Mile Flat	
4. Location of Well (Report location clearly and in accordance with	any State requirements.*)	.   1	1. Sec., T., R., M., or Blk	and Survey or Area
At surface NE/NW 660' FNL 1980' FWL			NE/NW Sec. 18.	T9S R18E
At proposed prod. zone			INE/INVV Sec. 16,	193 K 10E
14. Distance in miles and direction from nearest town or post office*		1	2. County or Parish	13. State
Approximatley 17.6 miles southeast of Myton, Utah			Uintah	UT
15. Distance from proposed* location to nearest property or lease line, ft.			Jnit dedicated to this well	
(Also to nearest drig. unit line, if any) Approx. 660 f/lse, NA f/unit	1,717.32		40 Acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.  Approx. 2640'	19. Proposed Depth	A Bond No. on file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will sta	rt* [	23. Estimated duration	
5090' GL	3rd Quarter 2004	·	Approximately seven (7) days from spud to rig release.	
	24. Attachments			
The following, completed in accordance with the requirements of Onshor	e Oil and Gas Order No.1, shall be att	ached to this fo	orm:	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	I ands the Stands the	ation. specific inform	unless covered by an exis	
25. Signature	Name (Printed/Typed)		! Dat	ρ
Il land a land as	Mandie Crozier			3/19/41
Title Regulatory Specialist				<i></i>
Hours Clarence	Name (Printed/Typed)	. ,	Da <b>02</b>	124/200
Title Assistant Field Manager	Office		/	7 -
Mineral Resources  Application approval does not warrant or certify the the applicant holds le operations thereon.  Conditions of approval, if any, are attached.	gal or equitable title to those rights in	the subject leas	se which would entitle the	applicant to conduct
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it States any false, fictitious or fraudulent statements or representations as to		d willfully to n	nake to any department of	agency of the United

\*(Instructions on reverse)

RECEIVED

MAY 04 1305

DIV. OF OIL, GAS & MINING

941M0960A

CONDITIONS OF APPROVAL ATTAC.

COAs Page 1 of 2 Well No.: Federal 3-18-9-18

# CONDITIONS OF APPROVAL APPLICATION FOR PERMIT TO DRILL

Company/Operator:

**Inland Production Company** 

Well Name & Number: Federal 3-18-9-18

API Number:

43-047-35581

Lease Number:

U-39714

Location:

NENW Sec. 18 T.9S R. 18E

Agreement:

N/A

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

### CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

Please submit to this office, in LAS format, an electronic copy of all logs run on this well This submission will replace the requirement for submittal of paper logs to the BLM.

In the event after-hours approvals are necessary, you must contact one of the following individuals:

Kirk Fleetwood

(435) 828-7874

Petroleum Engineer

Michael Lee

(435) 828-7875

Petroleum Engineer

BLM FAX Machine (435) 781-4410

COAs Page 2 of 2 Well No.: Federal 3-18-9-18

# **CONDITIONS OF APPROVAL** FOR THE SURFACE USE PROGRAM OF THE APPLICATION FOR PERMIT TO DRILL

Company/Operator:

**Inland Production Company** 

API Number:

43-047-35581

Well Name & Number: Federal 3-18-9-18

Lease Number:

U-39714

Location:

NENW Sec. 18 T. 9 S. R. 18 E.

Surface Ownership:

BLM

Date NOS Received:

None

Date APD Received:

3-22-04

- -No construction or drilling shall be allowed during the burrowing owl nesting season (April 1 to Aug. 15), without first consulting the BLM biologist. If no nesting owls are found, drilling will be allowed.
- -Mountain Plover surveys would have to be conducted in accordance with the U.S. Fish and Wildlife Service Mountain Plover Survey Guidelines.
- -To reduce noise levels in the area, a hospital muffler or multi-cylinder engine shall be installed on the pumping unit.

# Division of Oil, Gas and Mining

# **OPERATOR CHANGE WORKSHEET**

007

Change of Operator (Well Sold)

ROUTING 1. GLH

2. CDW 3. FILE

Designation of Agent/Operator

# X Operator Name Change

# Merger

The operator of the well(s) listed below has changed, effective:				9/1/2004					7
FROM: (Old Operator):				TO: ( New Operator):					7
N5160-Inland Production Company				N2695-Newfield Production Company					
Route 3 Box 3630				Route 3 Box 3630					
Myton, UT 84052				Myton, UT 84052					
Phone: 1-(435) 646-3721	Phone: 1-(435) 646-3721								
CA No. Unit:								7	
WELL(S)					•				7
NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS	
FEDERAL 2-4-9-18	04	090S	180E	4304735589	14485	Federal	ow	DRL	K
FEDERAL 3-4-9-18	04	090S	180E	4304735590		Federal	ow	APD	K
FEDERAL 5-4-9-18	04	090S	180E	4304735591		Federal	ow	APD	K
FEDERAL 6-4-9-18	04	090S	180E	4304735592		Federal	ow	APD	K
FEDERAL 8-4-9-18	04	090S	180E	4304735593	14528	Federal	ow	DRL	K
FEDERAL 10-4-9-18	04	090S	180E	4304735594	14535	Federal	ow	DRL	K
FEDERAL 12-4-9-18	04	090S	180E	4304735595		Federal	ow	NEW	K
FEDERAL 16-4-9-18	04	090S	180E	4304735596		Federal	ow	APD	K
FEDERAL 5-17-9-18	17	090S	180E	4304735561		Federal	ow	APD	K
FEDERAL 7-17-9-18	17	090S	180E	4304735562		Federal	ow	APD	K
FEDERAL 9-17-9-18	17	090S	180E	4304735563		Federal	ow	APD	K
FEDERAL 13-17-9-18	17	090S	180E	4304735564		Federal	ow	APD	K
FEDERAL 15-17-9-18	17	090S	180E	4304735565		Federal	ow	APD	K
FEDERAL 1-18-9-18	18	090S	180E	4304735580		Federal	ow	APD	K
FEDERAL 3-18-9-18	18	090S	180E	4304735581		Federal	OW	APD	K
FEDERAL 5-18-9-18	18	090S	180E	4304735582		Federal	OW	APD	K
FEDERAL 9-18-9-18	18	090S	180E	4304735583		Federal	OW	APD	K
FEDERAL 11-18-9-18	18	090S	180E	4304735584		Federal	OW	APD	K
FEDERAL 13-18-9-18	18	090S	180E	4304735585		Federal	ow	APD	K
FEDERAL 15-18-9-18	18	090S	180E	4304735587		Federal	OW	APD	K
								ļ	4
					لا			1	

# **OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

(R649-8-10) Sundry or legal documentation was received from the FORMER operator on: 9/15/2004
 (R649-8-10) Sundry or legal documentation was received from the NEW operator on: 9/15/2004

3. The new company was checked on the Department of Commerce, Division of Corporations Database on: 2/23/2005

YES Business Number:

4. Is the new operator registered in the State of Utah:

5. If NO, the operator was contacted contacted on:

755627-0143

6a. (R649-9-2)Waste Management Plan has been received on:	IN PLACE
6b. Inspections of LA PA state/fee well sites complete on:	waived
AND THE RESERVE OF THE PROPERTY OF THE PROPERT	
7. Federal and Indian Lease Wells: The BLM and or t	
or operator change for all wells listed on Federal or Indian lea	ses on: BLM BIA
8. Federal and Indian Units:	
The BLM or BIA has approved the successor of unit operate	or for wells listed on:n/a
9. Federal and Indian Communization Agreement	
The BLM or BIA has approved the operator for all wells list	ted within a CA on:na/
10. Underground Injection Control ("UIC") The	Division has approved UIC Form 5, Transfer of Authority to
Inject, for the enhanced/secondary recovery unit/project for the	he water disposal well(s) listed on: 2/23/2005
DATA ENTRY:	
1. Changes entered in the Oil and Gas Database on:	2/28/2005
-	
2. Changes have been entered on the Monthly Operator Change	ge Spread Sheet on: $2/28/2005$
3. Bond information entered in RBDMS on:	2/28/2005
4. Fee/State wells attached to bond in RBDMS on:	2/28/2005
5. Injection Projects to new operator in RBDMS on:	2/28/2005
· · · · · ·	
6. Receipt of Acceptance of Drilling Procedures for APD/New o	on: waived
FEDERAL WELL(S) BOND VERIFICATION:	
Federal well(s) covered by Bond Number:	UT 0056
INDIAN WELL(S) BOND VERIFICATION:	(10000110013
Indian well(s) covered by Bond Number:	61BSBDH2912
FEE & STATE WELL(S) BOND VERIFICATION	•
1. (R649-3-1) The NEW operator of any fee well(s) listed cover	
2. The FORMER operator has requested a release of liability from	
The Division sent response by letter on:	<u>n/a</u>
LEASE INTEREST OWNER NOTIFICATION:	
3. (R649-2-10) The <b>FORMER</b> operator of the fee wells has been	contacted and informed by a letter from the Division
of their responsibility to notify all interest owners of this change	ge on:n/a
COMMENTS:	
*Bond rider changed operator name from Inland Production Comp	oany to Newfield Production Company - received 2/23/05

# DIVISION OF OIL, GAS AND MINING

#### **SPUDDING INFORMATION**

Name of Com	npany:	NEWF)	IELD PROD	<u>UCTION</u>	<u>COM</u>	PANY
Well Name:_		FEDER	RAL 3-18-9-1	8		
Api No <u>:</u>	43-047-355	81		Lease Type	: <u>-</u>	FEDERAL
Section 18	Township_(	98 Range 18	BE County_	UIN	ГАН	
Drilling Contr	ractor	NDSI		RIG #	NS#	1
SPUDDE						
	Date	10/03/05				
	Time	10:00 AM				
	How	DRY				
Drilling wil	I Commer	oce:				
Reported by_		RAY HER	RERA			
Telephone #_		1-435-823	-1990			
Date 10	/04/2005	Signed	CHD			

STATE OF UTAH DIVISION OF CIL, GAS AND MINING **ENTITY ACTION FORM - FORM 6** 

ENTITY NO.

CURRENT

SHITT HO.

ACHON

CODE

DIV. OF OIL, GAS & MINING

API HUNBER

WELL HAME

ACDRESS: RT. 3 BOX 3630

ÇQ

CFERATOR: NEWFIELD PRODUCTION COMPANY

WELL LCCATION

RG

ત્

COUHTY

Signature

Production Clerk
Title

MYTON, UT 84052

SC

CPERATOR ACCT. NO.

SPUO

DATE

N2696

EFFECTIVE

CATE

5/2005	
12:42	
4356463031	

October 5, 2005

Date

	99999	14844	43-047-35581	FEDERAL 3-18-9-18	NENW	18	98	18E	UINTAH	10/03/05	10/7/0
ALL I C	ARIENTS:	GRRV									
1		<del></del>		WELL NAME	<del></del>		IEUL LCCATI	CNI CNI		SPL D	EFFECTIVE
TICA:	CURRENT EVITY NO.	HE#	API NUMBER	WCLL FOR DEC	00	ac ''	TP	RG	CCUINTY	DATE	DATE
Δ.	99999	14965	43-013-32651	FEDERAL 12-13-9-16	NWSW	13	98_	16E	DUCHESNE	09/29/05	10/7/05
		GER	N								_
aul		l umar T		WELLNAME			'AFILL	CCATION		SFLO	EFFECTIVE
HOT	CURRENT ENTITY NO.	SHEW ENTITY NO	API NUMBER	of ET LYPING	00	SC	TP	RG	COUNTY	CAVE	
	99999										
neu	SURRENT	1.EW	APINUMBER	WELLNAVE			WELL	CCATION		SPUD	EFFECTIVE
205	ENTITY HC.	ENTITY NO.	ServionoEli		CO	sc	ĪΡ	RG	CCLAITY	DATE	DATE
	99999										
											T percentile
T:011	CURRENT	MEM	APINJUMBER	WELL HAME		_		OCATION		SPUD	
	CURRENT ENTITY NO.	MEM ENTRY NC.	APINIAMBER	WELLNAME	ca	5C	WEU I	OCATXIN 96	COUNTY	SPUD DATS	EFFECTIVE CATE
			APINIAMBER	WELL MANE	ca	sc			COUNTY		
:DEE	ENTITY NO.		APINIMHER	WELL NAME	ca	SC	ТР	96	COUNTY	DATE	CATE
20E	99999 99999		API NUMBER	WELLNAME			TP	SG SG		DATE SPUID	CATE
ELS C	99999 99999 99999 99999 999999 999999	ENTITY NO.			Çq Qq	SC SC	ТР	96	COUNTY	DATE	
DL S C	99999  NAVENTS.	ENTITY NC.					TP	SG SG		DATE SPUID	CATE
СПСН ССЭЕ	99999 99999 99999 99999 999999 999999	ENTITY NC.					TP	SG SG		DATE SPUID	CATE

C - Re-assign well from one existing entity to another existing entity Die Reinss geweil from one existing statty to a new entity

3 - Addnew sell is existing entity (group or soil soil)

 $\mathcal{Z}_{\tau}$  - Other prepain a comments section)

#### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0135 Expires January 31,2004

UTU39714 '	

SUNDRY	NOTICES AND REPORT	S ON WELLS		5. Lease Serial No.			
Do not use t	his form for proposals to dri ell. Use Form 3160-3 (APD)	Il or to re-enter an		UTU39714 6. If Indian, Allott	tee or Tribe Name.		
abandoned we	eii. Use Fomi 3160-3 (APD)	ior such proposals.		<u> </u>	1		
				7. If Unit or CA/A	greement, Name and/or No.		
1. Type of Well		and the second of the second o		SUNDANCE UI	NIT		
	Other			8. Well Name and			
Name of Operator     Newfield Production Company				FEDERAL 3-18	-9-18		
3a. Address Route 3 Box 3630	[3b	. Phone No. (include are o	ode)	9. API Well No. 4304735581			
Myton, UT 84052		5.646.3721		10. Field and Pool	l, or Exploratory Area		
4. Location of Well (Footage, Sec 660 FNL 1980 FWL		Monument Butte					
NE/NW Section 18 T9S R1	8F		11. County or Par	ish, State			
NEW Section 18 195 KI	01,			Uintah,UT			
12. CHECK	APPROPRIATE BOX(ES)	TO INIDICATE NAT	TURE OF NO	OTICE, OR OT	HER DATA		
TYPE OF SUBMISSION		ТҮРЕ	OF ACTION				
	☐ Acidize ☐	<b>Деере</b> п	☐ Production	n(Start/Resume)	☐ Water Shut-Off		
■ Notice of Intent	Alter Casing	Fracture Treat	Reclamati	•	Well Integrity		
X Subsequent Report	Casing Repair	New Construction	Recomple	te	Other		
Final Abandonment Notice	Change Plans	Plug & Abandon	=	ily Abandon	Spud Notice		
- I mai i todico mitoriti i totico	Convert to Injector	Plug Back	Water Dis	posai			
On 10/3/05 MIRU NDSI NS On 10/9/05 cement with 16 Returned 4.5 bbls cement	S#1. Drill 310' of 12 1/4" hole 60 sks of class "G" w/ 2% CaC to pit. WOC.	e with air mist. TIH W. CL2 + 1/4# sk Cello- f	/ 7 Jt's 8 5/8" Flake Mixed (	J-55 24 # csgn @ 15.8 ppg > 1	n. Set @ 315.47'/ KB .17 cf/ sk yeild.		
I hereby certify that the foregoing is	true and correct	Title					
Name (Printed/ Typed) Alvin Nielsen		Drilling Foreman					
Signature // .	• /	Date	• • •	· · · · · · · · · · · · · · · · · · ·			
Me /h	ebo	10/10/2005	or, species agencially design	NATA SANCTA CONTRARANTA SANCTA CANTA SANCTA			
		audigiaagoissia			Market Contributions of Contribution States and Contribution Contributions of Contribution Contributions (Contribution Contribution)		
Approved by		Title	- 400	Dat	e		
Conditions of approval, if any, are attach	ted. Approval of this notice does not warra quitable title to those rights in the subject l duct operations thereon.	ant or					
	3 U.S.C. Section 1212, make it a crime for statements or representations as to any ma		llfully to make to		ency of the United		

(Instructions on reverse)

CCT 1 2 2005

## **NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT**

				CASING SE	TAI	315.47	_		
LAST CASI	NG <u>8 5/8</u> '	SET	AT 31 <u>5'</u>		OPERATOR	R	Newfield i	Production (	Sompany
DATUM _	12' KB				WELL Federal 3-18-9-18				
DATUM TO	CUT OFF C	ASING			FIELD/PRO	SPECT _	Monumen	t Butte	
DATUM TO	BRADENH	EAD FLANGE			CONTRACT	TOR & RIG#	t	NDSI NS #1	
TD DRILLER	310'	LOGG	ER						
HOLE SIZE	12 1/	4							
LOG OF CA	SING STRI	NG:			<b></b>				
PIECES	OD	ITEM -	MAKE - DESC	RIPTION	WT/FT	GRD	THREAD	CONDT	LENGTH
	<u> </u>								
		Shoe	Joint 43.30'						a
		WHI - 92 cs	g head				8rd	Α	0.95
7	8 5/8"	Maverick S			24#	J-55	8rd	Α	303.62
			GUIDE	shoe			8rd	Α	0.9
CASING IN\	/ENTORY B	AL.	FEET	JTS	TOTAL LEN	TOTAL LENGTH OF STRING			305.47
TOTAL LEN	GTH OF ST	RING	305.47	7	LESS CUT	OFF PIECE			2
LESS NON	CSG. ITEMS		1.85		PLUS DATU	IM TO T/CU	T OFF CSG		12
PLUS FULL	JTS. LEFT (	DUT	0		CASING SE	T DEPTH			315.47
	TOTAL		303.62	7	]1			_	
TOTAL CSG	. DEL. (W/O	THRDS)	302.91	7		RE			
TIMING			1ST STAGE		]				
BEGIN RUN	CSG.	Spud	10/3/2005	10:00 AM	GOOD CIRC	THRU JOB	3	YES	
CSG. IN HO	LE		10/4/2005	10:00 AM	Bbls CMT C	IRC TO SUR	FACE	4.5	
BEGIN CIRC	;		10/9/2005	9:03 AM	RECIPROCA	ATED PIPE I	FOR	N/A	
BEGIN PUM	P CMT		10/9/2005	9:14 AM			<del></del>		<del></del>
BEGIN DSPI	L. CMT		10/9/2005	9:24 AM	BUMPED PL	UG TO	350		PSI
PLUG DOW			10/9/2005	9:32 AM					<del></del>
CEMENT US	ED			CEMENT CO	MPANY-	B. J.			
STAGE	# SX			CEMENT TYP	PE & ADDITIV	ES .			
1	160	Class "G" w/	2% CaCL2 + 1	/4#/sk Cello-F	lake mixed @	15.8 ppg 1.	17 cf/sk yield		
						~	· · ·		
CENTRALIZI	ER & SCRA	TCHER PLAC	EMENT			SHOW MAK	E & SPACING		
Centralizers	s - Middle fi	rst, top seco	and & third for	3					
						····			
							***	·	
	····								
COMPANY F	REPRESENT	ATIVE	Alvin Nielser	1			DATE	10/10/2005	

RECEIVED CCT 1 2 2005

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0135 Expires January 31,2004

Do not use t	NOTICES AND REPOR	drill or to re-ent	er an	UTU39714  6. If Indian, Allottee or Tribe Name.		
abandoned w	ell. Use Form 3160-3 (API	O) for such prop	osais.	o. Il likilali, Alio	title traine.	
SUBMIT IN T	RIPLICATE Other Instr	netions on reve	rse side	7. If Unit or CA/	Agreement, Name and/or No.	
1. Type of Well				SUNDANCE U	JNIT .	
Oil Well Gas Well	Other			8. Well Name an		
Name of Operator     Newfield Production Company				FEDERAL 3-1	8-9-18	
3a. Address Route 3 Box 3630		3b. Phone No. (incl	ude are code)	9. API Well No. 4304735581		
Myton, UT 84052		435.646.3721			ol, or Exploratory Area	
4. Location of Well (Footage, Sec 660 FNL 1980 FWL	., T., R., M., or Survey Description		Monument But 11. County or Pa			
NE/NW Section 18 T9S R1		Uintah,UT	risii, Suite			
12 CUECK	ADDDODDIATE DOVICE	') TO DUDICAT	TE NATURE OF M		THER DATA	
	APPROPRIATE BOX(ES	) 10 INIDICA		TICE, OR U	IHER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION		Touto sim SV TVP	
☐ Notice of Intent	Acidize	Deepen	<b>=</b>	(Start/Resume)	Water Shut-Off	
. —	Alter Casing Casing Repair	Fracture Treat  New Construct	Reclamati		Well Integrity	
X Subsequent Report	Change Plans	Plug & Abando	=	ly Abandon	Weekly Status Report	
Final Abandonment Notice	Convert to Injector	Plug Back	☐ Water Dis			
csgn to 1,500 psi. Vernal B cement & shoe. Drill a 7.87 Dig/SP/GR log's TD to surf KB. Cement with 310 sks of	ig # 2. Set all equipment. Pi LM field, & Roosevelt DOGI 5 hole with fresh water to a ace. PU & TIH with Guide si ement mixed @ 11.0 ppg & Nipple down Bop's. Drop s	M office was not depth of 5,585. hoe, shoe jt, floa 3.43 yld. Then 4	fed of test. PU BHA Lay down drill string t collar, 131 jt's of 5. I20 sks cement mixe	and tag ceme & BHA. Open 5 J-55, 15.5# o d @ 14.4 ppg	nt @ 262'. Drill out hole log w/ csgn. Set @ 5565' / & 1.24 yld. With 12	
I hereby certify that the foregoing is	s true and correct	Title				
Name (Printed/ Typed) Alvin Nielsen		Drilling F	oreman			
Signature	Nielse	Date 10/30/20	05			
11 (11 the Pa <b>lit</b> ation		R FEDERAL O	RSIATE OFFIC	EUSE:	SEPTEMBER SEPTEMBER	
Approved by			Title	Da	ite	
Conditions of approval, if any, are attack certify that the applicant holds legal or e which would entitle the applicant to con-	quitable title to those rights in the subje		Office			

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on reverse)

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#### **NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT**

			<u> </u>	CASING SET	Fit clir @ 5		-		
LAST CASIN	NG 8.5/8"	SET	AT 3 <u>15'</u>		•		Newfield I	Production	domnany
DATUM			· · · · · · · · · · · · · · · · · · ·		WELL			Todaction	Jonipany
		ASING	12'				Monumen	t Butte	<del></del>
DATUM TO	BRADENHE	- AD FLANGE				_		NDSI rig #2	!
TD DRILLER	5585'	LOGG	ER 5571						
HÖLE SIZE		<del></del>							
LOG OF CA	SING STRIN	IG:							
PIECES	OD	ITEM -	MAKE - DESC	RIPTION	WT/FT	GRD	THREAD	CONDT	LENGTH
		Landing Jt							14
		Short jt	3737' (620')						
132	5 1/2"	ETC LT & C	casing		15.5#	J-55	8rd	Α	5536.09
		Float collar						,	0.6
1	5 1/2"	ETC LT&C	csg		15.5#	J-55	8rd	Α	16
			GUIDE	shoe			8rd	Α	0.65
CASING INV	ENTORY B	۹L.	FEET	JTS	TOTAL LEN	GTH OF ST	RING		5567.34
TOTAL LENGTH OF STRING 5567.34 133			133	LESS CUT	OFF PIECE			14	
LESS NON	CSG. ITEMS		15.25		PLUS DATUM TO T/CUT OFF CSG				12
PLUS FULL	JTS. LEFT C	DUT	459.3	11	CASING SE	T DEPTH			5565.34
	TOTAL		6011.39	144	$\mathbf{l}_1$			•	
TOTAL CSG	. DEL. (W/O	THRDS)	6011.39	144	COMPARE				
TIMING			1ST STAGE	2nd STAGE					
BEGIN RUN	CSG.		10/30/2005	1:30 AM	GOOD CIRC	THRU JOE	B	YES	
CSG. IN HO	LE		10/30/2005	4:30 AM	Bbls CMT C	IRC TO SUF	RFACE	12	
BEGIN CIRC	;		10/30/2005	4:30 AM	RECIPROCA	ATED PIPE	FOR	THRUSTROK	Œ_No
BEGIN PUM	P CMT		10/30/2005	5:12 AM	DID BACK F	PRES. VALV	E HOLD ? _	YES	
BEGIN DSPI	L. CMT		10/30/2005	6:04 AM	BUMPED PI	LUG TO _	2080	<del></del>	PSI
PLUG DOW	N		10/30/2005	6:28 AM					
CEMENT US	ED			CEMENT CO	MPANY-	B. J.	•		
STAGE	# SX			CEMENT TYP	E & ADDITIV	/ES			
1	310	Premlite II w	/ 10% gel + 3 9	% KCL, 3#'s /sl	CSE + 2# sl	k/kolseal + 1	/4#'s/sk Cello	Flake	
		mixed @ 11	.0 ppg W / 3.43	cf/sk yield					
2	420	50/50 poz W	// 2% Gel + 3%	KCL, .5%EC1	,1/4# sk C.F.	2% gel. 3%	SM mixed @	14.4 ppg W/ 1	.24 YLD
CENTRALIZ	ER & SCRA	CHER PLAC	CEMENT			SHOW MAK	E & SPACIN	G	
Centralizers	s - Middle fi	rst, top seco	ond & third. Th	nen every thir	d collar for a	a total of 20			
			<del></del>				····		
			···					·	
COMPANY F	REPRESENT	TATIVE _	Alvin Nielse	n			DATE	10/30/2005	

RECEIVED NOV 0 1 2005

inspection.)

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0135 Expires January 31,2004

SUNDRY NOTICES AND REPORTS ON WELLS

UTU39714

Lease Serial No.

abandoned we	6. If Indian, Allot	tee or Tribe Name.			
l. Type of Well	RIPLICATE - Other Inst	ructions on reverse sic	le	7. If Unit or CA/A SUNDANCE U	
2. Name of Operator Newfield Production Company	_ Oute			FEDERAL 3-18	• • • •
Sa. Address Route 3 Box 3630  Myton, UT 84052  4. Location of Well (Footage, Sec 660 FNL 1980 FWL  NE/NW Section 18 T9S R1	4304735581 10. Field and Pool, or Exploratory Area Monument Butte 11. County or Parish, State Uintah,UT				
12. CHECK	APPROPRIATE BOX(E		TURE OF NO	OTICE, OR OT	THER DATA
	Acidize Alter Casing Casing Repair Change Plans Convert to Injector	Deepen Fracture Treat New Construction Plug & Abandon Plug Back	Productio Reclamati Recomple Temporar Water Dis	rily Abandon sposal	☐ Water Shut-Off ☐ Well Integrity ☐ Other
under which the work will be perfor involved operations. If the operation	peration (clearly state all pertinent det or recomplete horizontally, give subsu- med or provide the Bond No. on file n results in a multiple completion or re-	rface locations and measured and with BLM/BIA. Required subseq ecompletion in a new interval, a F	true vertical depths uent reports shall b form 3160-4 shall b	s of all pertinent marke e filed within 30 days be filed once testing ha	ers and zones. Attach the Bond following completion of the as been completed. Final

Formation water is produced to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E) or at State of Utah approved surface disposal facilities.

> Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY

I hereby certify that the foregoing is true and correct	Title				
Name (Printed/Typed) Mandie Crozier	Regulatory Specialist				
Signature / 10 Met of 1000 in	Date 11/29/2005				
	ERAL OR STATE OFFI	TE USE			
Approved by	Title	Date			
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office				
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any p States any false, fictitions and frandulent statements or representations as to any matter w	erson knowingly and willfully to make	to any department bury my be the Vilited			
(Instructions on revuse)		NOV 3 0 2005	_		

#### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0135 Expires January 31,2004

5. Lease Serial No.

SUNDRY	NOTICES AND REPO		UTU39714				
Do not use the abandoned we	nis form for proposals to ell. Use Form 3160-3 (Al	odrii or to re-enter an PD) for such proposals		6. If Indian, Allott	ee or Tribe Nar	me.	
SUBMIT IN TR	UPLICATE - Other Ins	tructions on reverse sic	e	7. If Unit or CA/A	greement, Nam	ne and/or No.	
1. Type of Well				SUNDANCE UI	ЛТ		
	Other			8. Well Name and	No.		
2. Name of Operator				FEDERAL 3-18	-9-18		
Newfield Production Company		3b. Phone No. (include are	code)	9. API Well No.			
3a. Address Route 3 Box 3630 Myton, UT 84052		435.646.3721	coue)	4304735581 10. Field and Pool	l, or Explorator	y Area	
4. Location of Well (Footage, Sec.	, T., R., M., or Survey Descript			Monument Butte		, 	
660 FNL 1980 FWL				11. County or Par	ish, State		
NE/NW Section 18 T9S R18	BE	Uintah,UT					
12. CHECK	APPROPRIATE BOX(1				HER DATA	<u> </u>	
TYPE OF SUBMISSION		TYPE	OF ACTION	1		*	
_	Acidize	Deepen	Producti	on(Start/Resume)	Water Sh	ut-Off	
X Notice of Intent	Alter Casing	Fracture Treat	Reclama	tion	Well Into	egrity	
Subsequent Report	Casing Repair	New Construction	Recomp	lete	X Other _		
— ·	Change Plans	Plug & Abandon	•	arily Abandon	Varianc	e	
Final Abandonment Notice  13. Describe Proposed or Completed Op	Convert to Injector	Plug Back	Water D				
Newfield Production Compatanks to be equipped with Eformation, which are relative separator to maximize gas.  Newfield is requesting a value a surge of gas when the thing as well as risk a fire hazard.	Enardo or equivalent vent ely low gas producers (20 separation and sales. riance for safety reasons ief hatches are open. Whi	line valves. Newfield opo Dimcfpd). The majority of Crude oil production tar ile gauging tanks, lease o	erates wells the wells are	that produce from e equipped with a l with back press	n the Green a three phas ure devices	e will emit	
				•			
12-1-1 CH1,	25. 25.		Ac Ui	cepted by tah Division Gas and M	the of ining	Federal Approval Of The Action Is Necessary	
I hereby certify that the foregoing is	s true and correct	Title	<b></b> ,	11/30/0	5 1	ł	
Name (Printed/ Typed) Mandie Crozier		Regulatory Speci	Date:	1	in t	<del>-</del>	
Signature / Janh	Moren	Date 11/29/2005	Ву:	1511	CVI		
The restrict		OR FEDERAL OR ST	ATE OFFI	CE USE			
		m: t		Da	ıte.		
Approved by Conditions of approval, if any, are attack	hed. Approval of this notice does n	ot warrant or		Di			
certify that the applicant holds legal or e which would entitle the applicant to con	equitable title to those rights in the s iduct operations thereon.	ubject lease Office					
Title 18 U.S.C. Section 1001 and Title - States any false, fictitious and fraudulen	43 U.S.C. Section 1212, make it a cr	ime for any person knowingly and any matter within its jurisdiction	willfully to make	to any de la uner Or d	er by him bit	ed	

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0135 Expires January 31,2004

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals

Lease Serial No.
 UTU39714
 If Indian, Allottee or Tribe Name.

abandoned we	ell. Use Form 3160-3 (API	כ) tor such proposals.		_			
SUBMURTINGS	aravic Airs E Orthard histo	negot dinayar sa	[1] - [1]	7. If Unit or CA/A SUNDANCE UI	Agreement, Name and/or No.		
X Oil Well Gas Well	Other			8. Well Name and	1 No.		
2. Name of Operator				FEDERAL 3-18			
Newfield Production Company				9. API Well No.			
3a. Address Route 3 Box 3630		3b. Phone No. (include are	code)	4304735581			
Myton, UT 84052	·	435.646.3721			l, or Exploratory Area		
4. Location of Well (Footage, Sec		Monument Butt					
660 FNL 1980 FWL		11. County or Parish, State					
NE/NW Section 18 T9S R1	Uintah,UT						
12. CHECK	APPROPRIATE BOX(ES	S) TO INIDICATE NA	TURE OF NO	OTICE, OR OT	HER DATA		
TYPE OF SUBMISSION		TYPE	OF ACTION				
☐ Notice of Intent  ☑ Subsequent Report	Acidize Alter Casing Casing Repair Change Plans	Deepen Fracture Treat New Construction Plug & Abandon	Reclamati		Water Shut-Off Well Integrity Other Weekly Status Report		
Final Abandonment Notice	Convert to Injector	Plug Back	☐ Water Dis				
proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)  Status report for time period 11/11/05 - 11/28/05  Subject well had completion procedures intiated in the Green River formation on 11-11-05 without the use of a service rig over the well. A cement bond log was run and a total of four Green River intervals were perforated and hydraulically fracture treated with 20/40 mesh sand. Perforated intervals are as follows: Stage #1 (5470:5492'); Stage #2 (5319'-5325'),(5289'-5296'); Stage #3 (4982'-4990'),(4948'-4953'); Stage #4 (4746'-4765'). All perforations, were 4 JSPF. Composite flow-through frac plugs were used between stages. Fracs were flowed back through chokes. A service rig was moved over the well on 05-13-2005. Bridge plugs were drilled out and well was cleaned to 5548'. Zones were swab tested for sand cleanup. A new 1 1/2" bore rod pump was run in well on sucker rods. Well was placed on production via rod pump on 11-28-2005.							
I hereby certify that the foregoing is Name (Printed/Typed)	s true and correct	Title					
Lana Nebeker	<del>(1) ) ;                                   </del>	Production Clerk					
Signature Miles	belle	Date 12/09/2005					
U As Cart	THIS SPACE FO	REEDDRALORST	ATE OFFIC	រិស់នារិ			
(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Anna Marie Color Constant and Samuel Color	A STATE OF THE PARTY OF THE PAR					
Approved by		<u>Title</u>		Da	te		
Conditions of approval, if any, are attact certify that the applicant holds legal or e which would entitle the applicant to con	quitable title to those rights in the subj	varrant or ect lease Office					
Title 18 U.S.C. Section 1001 and Title 4 States any false, fictitious and fraudulen	3 U.S.C. Section 1212, make it a crime	e for any person knowingly and w	villfully to make to	any department or ag	ency of the United		
Charles may raise, rivintous and trandulon							

DEC 1 3 2005

DIV OF OIL GAS & MIRROR

(See other instructions ons reverse side)

SUBMIT IN DUPLICATE\* FORM APPROVED

OMB NO. 1004-0137 Expires: February 28, 1995

# **UNITED STATES**

	i				THE INTE				5. LEASE DESIG		and serial no. -39714	
BUREAU OF LAND MANAGEMENT WELL COMPLETION OR RECOMPLETION REPORT AND LOG*							6. IF INDIAN. ALLOTTEE OR TRIBE NAME					
a. TYPE OF WORK		LIION		_COIVI	FLETION	REFORTA	ND LOG		7. UNIT AGREE		NA ME	
a. THE OF WORK		OIL WELL	X	GAS WELL	DRY	Other					nce Unit	
b. TYPE OF WELL		WELL		WELL								
NEW 😾	work	1 г	7	PLUG [	DIFF	7			8. FARM OR LE	EASE NAM	E. WELL NO.	
WELL X	OVER	DEEPEN		BACK	RESVR.	Other				ederal	3-18-9-18	
. NAME OF OPERATOR		Nev	wfield F	xolorati	on Company	,			9. WELL NO.	43-04	7-35581	
. ADDRESS AND TELEP				····	······································				10. FIELD AND	POOL OR	WILDCAT	
LOCATION OF WE					Denver, CC				II SEC T R		Mile Flat OCK AND SURVEY	
At Surface					(NE/NW) Sec.				OR AREA			
At top prod. Interval rep	ported below								S€	ec. 18,	T9S, R18E	
At total depth				14. API NO.		DATE ISSUED	-		12. COUNTY OR	PARISH	13. STATE	
	•				047-35581	3	3/23/04		Uint		UT	
.5. DATE SPUDDED 10/3/05	16. DATE T.D. R	REACHED 29/05	17. DA		Ready to prod.) 28/05	18. ELEVATIONS (E 5090		rc.)*	5102' KB		19. ELEV. CASINGHE.	AD
0. TOTAL DEPTH. MD &		21. PLUG BAC	K T.D., MD		22. IF MULTIPL	E COMPL.,	23. INTERVALS	ROT	ARY TOOLS		CABLE TOOLS	
5585'			5548'	•	HOW MAN'	Y*	DRILLED BY		Х		•	
24. PRODUCING INTERV	AL(S), OF THIS (			OM. NAME (1	MD AND TVD)*						25. WAS DIRECTION/	۱L
				Green F	River 4746'	-5492'					SURVEY MADE	
e6. TYPE ELECTRIC AND	OTHER LOGS R	TIN									No 27. Was Well Core	<u> </u>
Dual Induction			nsated	Density	, Compensa	ted Neutron, (	GR, Caliper,	Ceme	ent Bond L	.og	No	
23. CASING SIZE/0	CDADE	WEIGHT.	LD #T		IG RECORD (Rep	ort all strings set in v HOLE SIZE	T	MENT OF	MENTING RECO	D.O.	AMOUNT PULLE	· D
8-5/8" - 3	J-55	24:			315'	12-1/4"	<del></del>		) sx Class "G		AMOUNT FULLE	.1)
5-1/2"	J-55	15.5	5#	5	5565'	7-7/8"	310 sx Prem	lite II an	d 420 sx 50/	50 Poz		
29.		LINI	ER RECOI	20			30.		TUBING REC	ΩDD		
SIZE	TOP (	· ·		M (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE		DEPTH SET (MD		PACKÉR SET (MI	D)
							2-7/8"		EOT @ 5481		TA @ 5383'	
OL BEDEADATION DEC	`ODD (Internal of			<u> </u>		32.	ACID SHOT	FDACT	URE, CEMEN	T SOURT		
I. PERFORATION REC INT	TERVAL	ze and number;	SL	ZE_	SPF/NUMBER			PRACI			MATERIAL USED	
	, ,	470'-5492'		6"	4/88	5470'-					ind in 506 bbls flu	
	289'-5296', 5			6"	4/52	5289'-					ind in 532 bbls flu	
(A1&3) 4	948'-4953', 4	746'-4765'		6" 6"	4/52 4/76	4948'- 4746'-			<u> </u>		and in 593 bbls flu and in 657 bbls flu	
	(01) 1	740 4700	т	<del>~  </del>	4770	7740	4700			-07 (0 00		
						-						
33.*					PRODU	CTION						
DATE FIRST PRODUCTION 11/28/0		PRODUCTION				RHAC SM Plu	nger Pump				ATUS (Producing or shu RODUCING	(-in)
DATE OF TEST	HOU	RS TESTED	CHOKE	SIZE	PROD'N, FOR C TEST PERIOD	DILBBLS.	GASMCF.	WATE	RBBL.		GAS-OIL RATIO	
30 day av					>	28	10		101		357	
LOW, TUBING PRESS.	CASI	NG PRESSURI		LATED R RATE	ОНВВІ	GASMCF.		WATER	BBL.	I. GRAVIT	Y-API (CORR.)	
				>				P	FCFA	/ED		
4. DISPOSITION OF GAS	S (Sold, used for fu	el, vented, etc.)	Sold	الموال	for Fuel			• 1	TEST WITHOUSE			
5. LIST OF ATTACHME	NTS		JOIU	~ 00eu	101 1 401				AN 032	2006		
-044 - M-0-617 - ETT	<del></del>		- /1		•			מ עום	'OII 0:-			
86. I hereby certify than SIGNLD	The Poregoing an	nd attached in	Cormation	s complete a	nd correct as determ	nined from all availabl Regu	le records Jatory Spec	ialist	OIL, GAS 8	MININ	IG <sub>12/29/200</sub>	5

recoveries); FORMATION	ТОР	воттом	DESCRIPTION, CONTENTS, ETC.		то	Р
				NAME	MEAS. DEPTH	TRUE VERT. DEPTI
			Well Name	Garden Gulch Mkr	3508'	
		<u> </u>	Federal 3-18-9-18	Garden Gulch 1 Garden Gulch 2	3682' 3795'	
			•	Point 3 Mkr	4058'	
				X Mkr	4284'	
				Y-Mkr	4323'	
				Douglas Creek Mkr	4450'	
				BiCarbonate Mkr B Limestone Mkr	4684' 4817'	
				Castle Peak	5250'	
			•	Basal Carbonate	220	
				Total Depth (LOGGERS	5576'	
				7.		
				·		
			•			



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 8

1595 Wynkoop Street DENVER, CO 80202-1129 Phone 800-227-8917

http://www.epa.gov/region08

Ref: 8P-W-GW

JAN 0 8 2009

<u>CERTIFIED MAIL</u> <u>RETURN RECEIPT REQUESTED</u>

Eric Sundberg Newfield Production Company 1001 Seventeenth Street – Suite 2000 Denver, CO 80202 Oil, Gas and Mining

FOR RECORD ONLY

43 047 35581 95 18E 18 Re: FINAL PERMIT

EPA UIC Permit UT21155-07854

Well: Federal 3-18-9-18 Uintah County, UT

Dear Mr. Sundberg:

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Permit for the proposed Federal 3-18-9-18 injection well. A Statement of Basis that discusses the conditions and requirements of this EPA UIC Permit is also included.

Please note that under the terms and conditions of this Final Permit you are authorized only to construct the proposed injection well. Prior to commencing injection, you first must fulfill all "Prior to Commencing Injection" requirements of the Final Permit, Part II Section C.1, and obtain written Authorization to Inject from the EPA. It is your responsibility to be familiar with and to comply with all provisions of your Final Permit. The EPA forms referenced in the permit are available at <a href="http://www.epa.gov/safewater/uic/reportingforms.html">http://www.epa.gov/safewater/uic/reportingforms.html</a>. Guidance documents for Cement Bond Logging, Radioactive Tracer testing, Step Rate testing, Mechanical Integrity demonstration, Procedure in the Event of a Mechanical Integrity Loss, and other UIC guidances, are available at <a href="http://www.epa.gov/region8/water/uic/deep\_injection.html">http://www.epa.gov/region8/water/uic/deep\_injection.html</a>. Upon request, hard copies of the EPA forms and guidance can be provided.

RECEIVED

JAN 26 2009

This EPA UIC Permit is issued for the operating life of the well unless terminated (Part III, Section B). The EPA may review this Permit at least every five (5) years to determine whether any action is warranted pursuant to 40 CFR § 144.36(a).

If you have any questions on the enclosed Final Permit or Statement of Basis, please call Jason Deardorff of my staff at (303) 312-6583, or toll-free at (800) 227-8917, ext. 312-6583.

Accepted by the Unah Devision of Oil, it is and the

Sincerely,

MA E

Eddie A. Sierra

Acting Assistant Regional Administrator

Office of Partnerships and Regulatory Assistance

Encl: Final UIC Permit

Statement of Basis

Cc: Final Permit Letter:

Uintah & Ouray Business Committee, Ute Indian Tribe

Curtis Cesspooch, Chairman
Irene Cuch, Vice-Chairwoman
Frances Poowegup, Councilwoman
Ronald Groves, Councilman
Phillip Chimburas, Councilman
Steven Cesspooch, Councilman

Daniel Picard, Superintendent U.S. Bureau of Indian Affairs Uintah & Ouray Indian Agency

#### All Enclosures:

Michelle Sabori Acting Director Land Use Department Ute Indian Tribe

Larry Love
Director of Energy & Minerals Dept.
Ute Indian Tribe

Elaine Willie GAP Coordinator Ute Indian Tribe

Gil Hunt Associate Director Utah Division of Oil, Gas, and Mining

Fluid Minerals Engineering Office BLM - Vernal Office

Michael Guinn District Manager Newfield Production Company Myton, Utah

# **\$EPA**

# UNDERGROUND INJECTION CONTROL PROGRAM PERMIT

PREPARED: January 2009

Permit No. UT21155-07854

Class II Enhanced Oil Recovery Injection Well

Federal 3-18-9-18 Uintah County, UT

Issued To

**Newfield Production Company** 

1001 Seventeenth Street, Suite 2000 Denver, CO 80202

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#### Part I. AUTHORIZATION TO CONSTRUCT AND OPERATE

Under the authority of the Safe Drinking Water Act and Underground Injection Control (UIC) Program regulations of the U. S. Environmental Protection Agency (EPA) codified at Title 40 of the Code of Federal Regulations (40 CFR) Parts 2, 124, 144, 146, and 147, and according to the terms of this Permit,

Newfield Production Company 1001 Seventeenth Street, Suite 2000 Denver, CO 80202

is authorized to construct and to operate the following Class II injection well or wells:

Federal 3-18-9-18 660'FNL; 1980'FWL., NENW S18, T9S, R18E Uintah County, UT

EPA regulates the injection of fluids into injection wells so that injection does not endanger underground sources of drinking water (USDWs). EPA UIC Permit conditions are based on authorities set forth at 40 CFR Parts 144 and 146, and address potential impacts to USDWs.

Under 40 CFR Part 144, Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General permit conditions for which the content is mandatory and not subject to site-specific differences are not discussed in this document. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege, nor does it authorize injury to persons or property or invasion of other private rights, or any infringement of other Federal, State or local laws or regulations. (40 CFR §144.35) An EPA UIC Permit may be issued for the operating life of the injection well or project unless terminated for reasonable cause under 40 CFR §§144.39, 144.40 and 144.41, and may be reviewed at least once every five (5) years to determine if action is required under 40 CFR §144.36(a).

This Permit is issued for the life of the well(s) unless modified, revoked and reissued, or terminated under 40 CFR 144.39 or 144.40. This EPA Permit may be adopted, modified, revoked and reissued, or terminated if primary enforcement authority for a UIC Program is delegated to an Indian Tribe or State. Upon the effective date of delegation, reports, notifications, questions and other correspondence should be directed to the Indian Tribe or State Director.

Issue Date:	JAN 0 8 2009		Effective	Date	FEB	0 8 SAA	<b>)</b>	
ma	edon				,			
Eddie Acting	A. Sierra Assistant Regional Admi	inistrator*		• .				

Office of Partnerships and Regulatory Assistance

\*NOTE: The person holding this title is referred to as the "Director" throughout this Permit.

#### PART II. SPECIFIC PERMIT CONDITIONS

#### Section A. WELL CONSTRUCTION REQUIREMENTS

These requirements represent the approved minimum construction standards for well casing and cement, injection tubing, and packer.

Details of the approved well construction plan are incorporated into this Permit as APPENDIX A. Changes to the approved plan that may occur during construction must be approved by the Director prior to being physically incorporated.

#### 1. Casing and Cement.

The well or wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. The well casing and cement shall be designed for the life expectancy of the well and of the grade and size shown in APPENDIX A. Remedial cementing may be required if shown to be inadequate by cement bond log or other attempted demonstration of Part II (External) mechanical integrity.

#### 2. Injection Tubing and Packer.

Injection tubing is required, and shall be run and set with a packer at or below the depth indicated in APPENDIX A. The packer setting depth may be changed provided it remains below the depth indicated in APPENDIX A and the Permittee provides notice and obtains the Director's approval for the change.

#### 3. Sampling and Monitoring Devices.

The Permittee shall install and maintain in good operating condition:

- (a) a "tap" at a conveniently accessible location on the injection flow line between the pump house or storage tanks and the injection well, isolated by shut-off valves, for collection of representative samples of the injected fluid; and
- (b) one-half (1/2) inch female iron pipe fitting, isolated by shut-off valves and located at the wellhead at a conveniently accessible location, for the attachment of a pressure gauge capable of monitoring pressures ranging from normal operating pressures up to the Maximum Allowable Injection Pressure specified in APPENDIX C:
  - (i) on the injection tubing; and
  - (ii) on the tubing-casing annulus (TCA); and
- (c) a pressure actuated shut-off device attached to the injection flow line set to shut-off the injection pump when or before the Maximum Allowable Injection Pressure (MAIP) specified in APPENDIX C is reached at the wellhead; and
- (d) a non-resettable cumulative volume recorder attached to the injection line.

#### 4. Well Logging and Testing

Well logging and testing requirements are found in APPENDIX B. The Permittee shall ensure the log and test requirements are performed within the time frames specified in APPENDIX B. Well logs and tests shall be performed according to current EPA-approved procedures. Well log and test results shall be submitted to the Director within sixty (60) days of completion of the logging or testing activity, and shall include a report describing the methods used during logging or testing and an interpretation of the test or log results.

#### 5. Postponement of Construction or Conversion

The Permittee shall complete well construction within one year of the Effective Date of the Permit, or in the case of an Area Permit within one year of Authorization of the additional well. Authorization to construct and operate shall expire if the well has not been constructed within one year of the Effective Date of the Permit or Authorization and the Permit may be terminated under 40 CFR 144.40, unless the Permittee has notified the Director and requested an extension prior to expiration. Notification shall be in writing, and shall state the reasons for the delay and provide an estimated completion date. Once Authorization has expired under this part, the complete permit process including opportunity for public comment may be required before Authorization to construct and operate may be reissued.

#### 6. Workovers and Alterations

Workovers and alterations shall meet all conditions of the Permit. Prior to beginning any addition or physical alteration to an injection well that may significantly affect the tubing, packer or casing, the Permittee shall give advance notice to the Director and obtain the Director's approval. The Permittee shall record all changes to well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workover, logging, or test data to EPA within sixty (60) days of completion of the activity.

A successful demonstration of Part I MI is required following the completion of any well workover or alteration which affects the casing, tubing, or packer. Injection operations shall not be resumed until the well has successfully demonstrated mechanical integrity and the Director has provided written approval to resume injection.

#### Section B. MECHANICAL INTEGRITY

The Permittee is required to ensure each injection well maintains mechanical integrity at all times. The Director, by written notice, may require the Permittee to comply with a schedule describing when mechanical integrity demonstrations shall be made.

An injection well has mechanical integrity if:

- (a) There is no significant leak in the casing, tubing, or packer (Part I); and
- (b) There is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection well bore (Part II).

#### 1. Demonstration of Mechanical Integrity (MI).

The operator shall demonstrate MI prior to commencing injection and periodically thereafter. Well-specific conditions dictate the methods and the frequency for demonstrating MI and are discussed in the Statement of Basis. The logs and tests are designed to demonstrate both internal (Part I) and external (Part II) MI as described above. The conditions present at this well site warrant the methods and frequency required in Appendix B of this Permit.

In addition to these regularly scheduled demonstrations of MI, the operator shall demonstrate internal (Part I) MI after any workover which affects the tubing, packer or casing.

The Director may require additional or alternative tests if the results presented by the operator are not satisfactory to the Director to demonstrate there is no movement of fluid into or between USDWs resulting from injection activity. Results of MI tests shall be submitted to the Director as soon as possible but no later than sixty (60) days after the test is complete.

#### 2. Mechanical Integrity Test Methods and Criteria

EPA-approved methods shall be used to demonstrate mechanical integrity. Ground Water Section Guidance No. 34 "Cement Bond Logging Techniques and Interpretation", Ground Water Section Guidance No. 37, "Demonstrating Part II (External) Mechanical Integrity for a Class II injection well permit", and Ground Water Section Guidance No. 39, "Pressure Testing Injection Wells for Part I (Internal) Mechanical Integrity" are available from EPA and will be provided upon request.

The Director may stipulate specific test methods and criteria best suited for a specific well construction and injection operation.

#### 3. Notification Prior to Testing.

The Permittee shall notify the Director at least 30 days prior to any scheduled mechanical integrity test. The Director may allow a shorter notification period if it would be sufficient to enable EPA to witness the mechanical integrity test. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests, or it may be on an individual basis.

#### 4. Loss of Mechanical Integrity.

If the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity becomes evident during operation (such as presence of pressure in the TCA, water flowing at the surface, etc.), the Permittee shall notify the Director within 24 hours (see Part III Section E Paragraph 11(e) of this Permit) and the well shall be shut-in within 48 hours unless the Director requires immediate shut-in.

Within five days, the Permittee shall submit a follow-up written report that documents test results, repairs undertaken or a proposed remedial action plan.

Injection operations shall not be resumed until after the well has successfully been repaired and demonstrated mechanical integrity, and the Director has provided approval to resume injection.

#### Section C. WELL OPERATION

INJECTION BETWEEN THE OUTERMOST CASING PROTECTING UNDERGROUND SOURCES OF DRINKING WATER AND THE WELL BORE IS PROHIBITED.

Injection is approved under the following conditions:

#### 1. Requirements Prior to Commencing Injection.

Well injection, including for new wells authorized by an Area Permit under 40 CFR 144.33 (c), may commence only after all well construction and pre-injection requirements herein have been met and approved. The Permittee may not commence injection until construction is complete, and

- (a) The Permittee has submitted to the Director a notice of completion of construction and a completed EPA Form 7520-10 or 7520-12; all applicable logging and testing requirements of this Permit (see APPENDIX B) have been fulfilled and the records submitted to the Director; mechanical integrity pursuant to 40 CFR 146.8 and Part II Section B of this Permit has been demonstrated; and
  - (i) The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the Permit; or
  - (ii) The Permittee has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in Paragraph 1a, in which case prior inspection or review is waived and the Permittee may commence injection.

#### 2. Injection Interval.

Injection is permitted only within the approved injection interval, listed in APPENDIX C. Additional individual injection perforations may be added provided that they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6.

#### 3. Injection Pressure Limitation

- (a) The permitted Maximum Allowable Injection Pressure (MAIP), measured at the wellhead, is found in APPENDIX C. Injection pressure shall not exceed the amount the Director determines is appropriate to ensure that injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs. In no case shall injection pressure cause the movement of injection or formation fluids into a USDW.
- (b) The Permittee may request a change of the MAIP, or the MAIP may be increased or decreased by the Director in order to ensure that the requirements in Paragraph (a) above are fulfilled. The Permitee may be required to conduct a step rate injection test or other suitable test to provide information for determining the fracture pressure of the injection zone. Change of the permitted MAIP by the Director shall be by modification of this Permit and APPENDIX C.

#### 4. Injection Volume Limitation.

Injection volume is limited to the total volume specified in APPENDIX C.

#### 5. Injection Fluid Limitation.

Injected fluids are limited to those identified in 40 CFR 144.6(b)(2) as fluids used for enhanced recovery of oil or natural gas, including those which are brought to the surface in connection with conventional oil or natural gas production that may be commingled with waste waters from gas plants which are an integral part of production operations unless those waters are classified as a hazardous waste at the time of injection, pursuant to 40 CFR 144.6(b). Non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes and vacuum truck wastes, are NOT approved for injection. This well is NOT approved for commercial brine injection, industrial waste fluid disposal or injection of hazardous waste as defined by CFR 40 Part 261. The Permittee shall provide a listing of the sources of injected fluids in accordance with the reporting requirements in Part II Section D Paragraph 4 and APPENDIX D of this Permit.

#### 6. Tubing-Casing Annulus (TCA)

The tubing-casing annulus (TCA) shall be filled with water treated with a corrosion inhibitor, or other fluid approved by the Director. The TCA valve shall remain closed during normal operating conditions and the TCA pressure shall be maintained at zero (0) psi.

If TCA pressure cannot be maintained at zero (0) psi, the Permittee shall follow the procedures in Ground Water Section Guidance No. 35 "Procedures to follow when excessive annular pressure is observed on a well."

#### Section D. MONITORING, RECORDKEEPING, AND REPORTING OF RESULTS

#### 1. Monitoring Parameters, Frequency, Records and Reports.

Monitoring parameters are specified in APPENDIX D. Pressure monitoring recordings shall be taken at the wellhead. The listed parameters are to be monitored, recorded and reported at the frequency indicated in APPENDIX D even during periods when the well is not operating.

Monitoring records must include:

- (a) the date, time, exact place and the results of the observation, sampling, measurement, or analysis, and;
- (b) the name of the individual(s) who performed the observation, sampling, measurement, or analysis, and;
- (c) the analytical techniques or methods used for analysis.

#### 2. Monitoring Methods.

(a) Monitoring observations, measurements, samples, etc. taken for the purpose of complying with these requirements shall be representative of the activity or condition being monitored.

- (b) Methods used to monitor the nature of the injected fluids must comply with analytical methods cited and described in Table 1 of 40 CFR 136.3 or Appendix III of 40 CFR 261, or by other methods that have been approved in writing by the Director.
- (c) Injection pressure, annulus pressure, injection rate, and cumulative injected volumes shall be observed and recorded at the wellhead under normal operating conditions, and all parameters shall be observed simultaneously to provide a clear depiction of well operation.
- (d) Pressures are to be measured in pounds per square inch (psi).
- (e) Fluid volumes are to be measured in standard oil field barrels (bbl).
- (f) Fluid rates are to be measured in barrels per day (bbl/day).

#### 3. Records Retention.

- (a) Records of calibration and maintenance, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a period of AT LEAST THREE (3) YEARS from the date of the sample, measurement, report, or application. This period may be extended anytime prior to its expiration by request of the Director.
- (b) Records of the nature and composition of all injected fluids must be retained until three (3) years after the completion of any plugging and abandonment (P&A) procedures specified under 40 CFR 144.52(a)(6) or under Part 146 Subpart G, as appropriate. The Director may require the Permittee to deliver the records to the Director at the conclusion of the retention period. The Permittee shall continue to retain the records after the three (3) year retention period unless the Permittee delivers the records to the Director or obtains written approval from the Director to discard the records.

#### 4. Annual Reports.

Whether the well is operating or not, the Permittee shall submit an Annual Report to the Director that summarizes the results of the monitoring required by Part II Section D and APPENDIX D.

The first Annual Report shall cover the period from the effective date of the Permit through December 31 of that year. Subsequent Annual Reports shall cover the period from January 1 through December 31 of the reporting year. Annual Reports shall be submitted by February 15 of the year following data collection. EPA Form 7520-11 may be copied and shall be used to submit the Annual Report, however, the monitoring requirements specified in this Permit are mandatory even if EPA Form 7520-11 indicates otherwise.

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#### Section E. PLUGGING AND ABANDONMENT

#### 1. Notification of Well Abandonment, Conversion or Closure.

The Permittee shall notify the Director in writing at least forty-five (45) days prior to: 1) plugging and abandoning an injection well, 2) converting to a non-injection well, and 3) in the case of an Area Permit, before closure of the project.

#### 2. Well Plugging Requirements

Prior to abandonment, the injection well shall be plugged with cement in a manner which isolates the injection zone and prevents the movement of fluids into or between underground sources of drinking water, and in accordance with 40 CFR 146.10 and other applicable Federal, State or local law or regulations. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.6 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. Prior to placement of the cement plug(s) the well shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Director.

#### 3. Approved Plugging and Abandonment Plan.

The approved plugging and abandonment plan is incorporated into this Permit as APPENDIX E. Changes to the approved plugging and abandonment plan must be approved by the Director prior to beginning plugging operations. The Director also may require revision of the approved plugging and abandonment plan at any time prior to plugging the well.

#### 4. Forty Five (45) Day Notice of Plugging and Abandonment.

The Permittee shall notify the Director at least forty-five (45) days prior to plugging and abandoning a well and provide notice of any anticipated change to the approved plugging and abanonment plan.

#### 5. Plugging and Abandonment Report.

Within sixty (60) days after plugging a well, the Permittee shall submit a report (EPA Form 7520-13) to the Director. The plugging report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

- (a) A statement that the well was plugged in accordance with the approved plugging and abandonment plan; or
- (b) Where actual plugging differed from the approved plugging and abandonment plan, an updated version of the plan, on the form supplied by the Director, specifying the differences.

#### 6. Inactive Wells.

After any period of two years during which there is no injection the Permittee shall plug and abandon the well in accordance with Part II Section E Paragraph 2 of this Permit unless the Permittee:

- (a) Provides written notice to the Director;
- (b) Describes the actions or procedures the Permittee will take to ensure that the well will not endanger USDWs during the period of inactivity. These actions and procedures shall include compliance with mechanical integrity demonstration, Financial Responsibility and all other permit requirements designed to protect USDWs; and
- (c) Receives written notice by the Director temporarily waiving plugging and abandonment requirements.

#### PART III. CONDITIONS APPLICABLE TO ALL PERMITS

#### Section A. EFFECT OF PERMIT

The Permittee is allowed to engage in underground injection in accordance with the conditions of this Permit. The Permittee shall not construct, operate, maintain, convert, plug, abandon, or conduct any other activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR 142 or may otherwise adversely affect the health of persons. Any underground injection activity not authorized by this Permit or by rule is prohibited. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of any other Federal, State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any enforcement action brought under the provisions of Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment, for any imminent and substantial endangerment to human health or the environment, nor does it serve as a shield to the Permittee's independent obligation to comply with all UIC regulations. Nothing in this Permit relieves the Permittee of any duties under applicable regulations.

#### Section B. CHANGES TO PERMIT CONDITIONS

#### 1. Modification, Reissuance, or Termination.

The Director may, for cause or upon a request from the Permittee, modify, revoke and reissue, or terminate this Permit in accordance with 40 CFR 124.5, 144.12, 144.39, and 144.40. Also, this Permit is subject to minor modification for causes as specified in 40 CFR 144.41. The filing of a request for modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any condition of this Permit.

#### 2. Conversions.

The Director may, for cause or upon a written request from the Permittee, allow conversion of the well from a Class II injection well to a non-Class II well. Conversion may not proceed until the Permittee receives written approval from the Director. Conditions of such conversion may include but are not limited to, approval of the proposed well rework, follow up demonstration of mechanical integrity, well-specific monitoring and reporting following the conversion, and demonstration of practical use of the converted configuration.

#### 3. Transfer of Permit.

Under 40 CFR 144.38, this Permit is transferable provided the current Permittee notifies the Director at least thirty (30) days in advance of the proposed transfer date (EPA Form 7520-7) and provides a written agreement between the existing and new Permittees containing a specific date for transfer of Permit responsibility, coverage and liability between them. The notice shall adequately demonstrate that the financial responsibility requirements of 40 CFR 144.52(a)(7) will be met by the new Permittee. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act; in some cases, modification or revocation and reissuance is mandatory.

#### 4. Permittee Change of Address.

Upon the Permittee's change of address, or whenever the operator changes the address where monitoring records are kept, the Permittee must provide written notice to the Director within 30 days.

#### 5. Construction Changes, Workovers, Logging and Testing Data

The Permittee shall give advance notice to the Director, and shall obtain the Director's written approval prior to any physical alterations or additions to the permitted facility. Alterations or workovers shall meet all conditions as set forth in this permit. The Permittee shall record any changes to the well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workovers, logging, or test data to EPA within sixty (60) days of completion of the activity.

Following the completion of any well workovers or alterations which affect the casing, tubing, or packer, a successful demonstration of mechanical integrity (Part III, Section F of this Permit) shall be made, and written authorization from the Director received, prior to resuming injection activities.

#### Section C. SEVERABILITY

The Provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

#### Section D. CONFIDENTIALITY

In accordance with 40 CFR Part 2 and 40 CFR 144.5, information submitted to EPA pursuant to this Permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

- The name and address of the Permittee, and
- information which deals with the existence, absence or level of contaminants in drinking water.

#### Section E. GENERAL PERMIT REQUIREMENTS

#### 1. Duty to Comply.

The Permittee must comply with all conditions of this Permit. Any noncompliance constitutes a violation of the Safe Drinking Water Act (SDWA) and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the Permittee need not comply with the provisions of this Permit to the extent and for the duration such noncompliance is authorized in an emergency permit under 40 CFR 144.34. All violations of the SDWA may subject the Permittee to penalties and/or criminal prosecution as specified in Section 1423 of the SDWA.

#### 2. Duty to Reapply.

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, under 40 CFR 144.37 the Permittee must apply for a new permit prior to the expiration date.

#### 3. Need to Halt or Reduce Activity Not a Defense.

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

#### 4. Duty to Mitigate.

The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Permit.

#### 5. Proper Operation and Maintenance.

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.

#### 6. Permit Actions.

This Permit may be modified, revoked and reissued or teminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

#### 7. Property Rights.

This Permit does not convey any property rights of any sort, or any exclusive privilege.

#### 8. Duty to Provide Information.

The Permittee shall furnish to the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit. The Permittee is required to submit any information required by this Permit or by the Director to the mailing address designated in writing by the Director.

#### 9. Inspection and Entry.

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,
- (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

#### 10. Signatory Requirements.

All applications, reports or other information submitted to the Director shall be signed and certified according to 40 CFR 144.32. This section explains the requirements for persons duly authorized to sign documents, and provides wording for required certification.

#### 11. Reporting Requirements.

- (a) Planned changes. The Permittee shall give notice to the Director as soon as possible of any planned changes, physical alterations or additions to the permitted facility, and prior to commencing such changes.
- (b) Anticipated noncompliance. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) Monitoring Reports. Monitoring results shall be reported at the intervals specified in this Permit.
- (d) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 30 days following each schedule date.
- (e) Twenty-four hour reporting. The Permittee shall report to the Director any noncompliance which may endanger human health or the environment, including:
  - (i) Any monitoring or other information which indicates that any contaminant may cause endangerment to a USDW; or
  - (ii) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Information shall be provided, either directly or by leaving a message, within twenty-four (24) hours from the time the permittee becomes aware of the circumstances by telephoning (800) 227-8917 and requesting EPA Region VIII UIC Program Compliance and Technical Enforcement Director, or by contacting the EPA Region VIII Emergency Operations Center at (303) 293-1788.

In addition, a follow up written report shall be provided to the Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

- (f) Oil Spill and Chemical Release Reporting: The Permittee shall comply with all reporting requirements related to the occurence of oil spills and chemical releases by contacting the National Response Center (NRC) at (800) 424-8802, (202) 267-2675, or through the NRC website http://www.nrc.uscg.mil/index.htm.
- (g) Other Noncompliance. The Permittee shall report all instances of noncompliance not reported under paragraphs Part III, Section E Paragraph 11(b) or Section E, Paragraph 11(e) at the time the monitoring reports are submitted. The reports shall contain the information listed in Paragraph 11(e) of this Section.
- (h) Other information. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit such facts or information to the Director.

#### Section F. FINANCIAL RESPONSIBILITY

#### 1. Method of Providing Financial Responsibility.

The Permittee shall maintain continuous compliance with the requirement to maintain financial responsibility and resources to close, plug, and abandon the underground injection well(s). No substitution of a demonstration of financial responsibility shall become effective until the Permittee receives written notification from the Director that the alternative demonstration of financial responsibility is acceptable. The Director may, on a periodic basis, require the holder of a permit to revise the estimate of the resources needed to plug and abandon the well to reflect changes in such costs and may require the Permittee to provide a revised demonstration of financial responsibility.

#### 2. Insolvency.

In the event of:

- (a) the bankruptcy of the trustee or issuing institution of the financial mechanism; or
- (b) suspension or revocation of the authority of the trustee institution to act as trustee; or

(c) the institution issuing the financial mechanism losing its authority to issue such an instrument

the Permittee must notify the Director in writing, within ten (10) business days, and the Permittee must establish other financial assurance or liability coverage acceptable to the Director within sixty (60) days after any event specified in (a), (b), or (c) above.

The Permittee must also notify the Director by certified mail of the commencement of voluntary or involuntary proceedings under Title 11 (Bankruptcy), U.S. Code naming the owner or operator as debtor, within ten (10) business days after the commencement of the proceeding. A guarantor, if named as debtor of a corporate guarantee, must make such a notification as required under the terms of the guarantee.

# STATEMENT OF BASIS

## NEWFIELD PRODUCTION COMPANY FEDERAL 3-18-9-18 **UINTAH COUNTY, UT**

#### **EPA PERMIT NO. UT21155-07854**

**CONTACT:** Jason Deardorff

U. S. Environmental Protection Agency

Ground Water Program, 8P-W-GW

1595 Wynkoop Street Denver, Colorado 80202-1129

Permit UT21155-07854 2 FINAL PERMIT Statement of Basis

This STATEMENT OF BASIS gives the derivation of site-specific UIC Permit conditions and reasons for them. Referenced sections and conditions correspond to sections and conditions in the Permit.

EPA UIC permits regulate the injection of fluids into underground injection wells so that the injection does not endanger underground sources of drinking water. EPA UIC permit conditions are based upon the authorities set forth in regulatory provisions at 40 CFR Parts 144 and 146, and address potential impacts to underground sources of drinking water. Under 40 CFR 144.35 Issuance of this permit does not convey any property rights of any sort or any exclusive privilege, nor authorize injury to persons or property of invasion of other private rights, or any infringement of other Federal, State or local laws or regulations. Under 40 CFR 144 Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General Permit conditions for which the content is mandatory and not subject to site-specific differences (40 CFR Parts 144, 146 and 147) are not discussed in this document.

Upon the Effective Date when issued, the Permit authorizes the construction and operation of injection wells so that the injection does not endanger underground sources of drinking water, governed by the conditions specified in the Permit. The Permit is issued for the operating life of the injection well or project unless terminated for reasonable cause under 40 CFR 144.39, 144.40 and 144.41. The Permit is subject to EPA review at least once every five (5) years to determine if action is required under 40 CFR 144.36(a).

### PART I. General Information and Description of Facility

Newfield Production Company 1001 Seventeenth Street, Suite 2000 Denver, CO 80202

on

June 25, 2007

submitted an application for an Underground Injection Control (UIC) Program Permit or Permit Modification for the following injection well or wells:

Federal 3-18-9-18 660'FNL; 1980'FWL., NENW S18, T9S, R18E Uintah County, UT

Regulations specific to Uintah-Ouray Indian Reservation injection wells are found at 40 CFR 147 Subpart TT.

The application, including the required information and data necessary to issue or modify a UIC Permit in accordance with 40 CFR Parts 144, 146 and 147, was reviewed and determined by EPA to be complete.

The Permit will expire upon delegation of primary enforcement responsibility (primacy) for applicable portions of the UIC Program to the Ute Indian Tribe or the State of Utah unless the delegated agency has the authority and chooses to adopt and enforce this Permit as a Tribal or State Permit.

TABLE 1.1 shows the status of the well or wells as "New", "Existing", or "Conversion" and for Existing shows the original date of injection operation. Well authorization "by rule" under 40 CFR Part 144 Subpart C expires automatically on the Effective Date of an issued UIC Permit.

The Federal No. 3-18-9-18 is a Green River Formation (Douglas Creek Member) production well. It is the initial intent of the applicant to move the packer from its current depth of 5383 feet (KB depth) to a depth of 4711 feet (KB depth) for well conversion from production to injection of brine for Class II enhanced recovery.

		TABLE 1.1	
WE	LL STAT	US / DATE OF OPERA	TION
		NEW WELLS	
Well Name	e e e	Well Status	Date of Operation
Federal 3-18-9-18		New	N/A

# PART II. Permit Considerations (40 CFR 146.24)

# **Hydrogeologic Setting**

Water wells for domestic supply in this area, when present, generally are completed into the shallow alluvium, the Duchesne River Formation, or the underlying Uinta Formation, and the water generally contains approximately 500 to 1,500 mg/L and higher total dissolved solids.

The Uinta-Animas aquifer in the Uinta Basin is present in water-yielding beds of sandstone, conglomerate, and siltstone of the Duchesne River and Uinta Formations, the Renegade Tongue of the Wasatch Formation, and the Douglas Creek Member of the Green River Formation. The Renegade Tongue of the Wasatch Formation and the Douglas Creek Member of the Green River Formation contain an aquifer along the southern and eastern margins of the basin where the rocks primarily consist of fluvial, massive, irregularly bedded sandstone and siltstone. Water-yielding units in the Uinta-Animas aquifer in the Uinta Basin commonly are separated from each other and from the underlying Mesaverde aquifer by units of low permeability composed of claystone, shale, marlstone, or limestone. In the Uinta Basin, for example, the part of the aquifer in the Duchesne River and Uinta Formations ranges in thickness from 0 feet at the southern margin of the aquifer to as much as 9,000 feet in the north-central part of the aquifer. Ground-water recharge to the Uinta-Animas aguifer generally occurs in the areas of higher altitude along the margins of the basin. Ground water is discharged mainly to streams, springs, and by transpiration from vegetation growing along stream valleys. The rate of groundwater withdrawal is small, and natural discharge is approximately equal to recharge. Recharge occurs near the southern margin of the aquifer, and discharge occurs near the White and Green Rivers (from USGS publication HA 730-C). Water samples from Mesaverde sands in the nearby Natural Buttes Unit yielded highly saline water.

# **Geologic Setting (TABLE 2.1)**

The proposed enhanced oil recovery injection well is located in the Eight Mile North Flat Field, which is part of the Greater Monument Butte Field, T7-9S and R15-19E, which lies near the center of the broad, gently northward dipping south flank of the Uinta Basin. More than 450 million barrels of oil (63 MT) have been produced from sediments of the Uinta Basin. The Uinta Basin is a topographic and structural trough encompassing an area of more than 9300 square mi (14,900 km) in northeast Utah. The basin is sharply asymmetrical, with a steep north flank bounded by the east-west-trending Uinta Mountains, and a gently dipping south flank. The Uinta Basin was formed in Paleocene to Eocene time, creating a large area of internal drainage which was filled by the ancestral Lake Uinta. The lacustrine, or fresh water lake-formed, sediments deposited in and around Lake Uinta make up the Uintah and Green River Formations. The southern shore of Lake Uinta was very broad and flat, resulting in large cyclic shifts of the location of the shoreline during the many repeated transgressive and regressive cycles caused by the climatic and tectonicinduced rise and fall of water levels of the lake. Distributary-mouth bars, distributary channels, and near-shore bars are the primary oil producing sandstone reservoirs in the area. (Ref: "Reservoir Characterization of the Lower Green River Formation, Southwest Uinta Basin, Utah Biannual Technical Progress Report, 4/1/99-9/30/99", by C. D. Morgan, Program Manager, November 1999, Contract DE-AC26-98BC15103).

The Duchesne River Formation is absent in this area. Shale and siltstone of the Uintah Formation outcrop and compose the surface rock throughout the area. The lower 600 feet to 800 feet of the Uinta Formation, consisting generally of shale interbedded with occasionally water-bearing sandstone lenses between 5 feet to 20 feet thick, is underlain by the Green River Formation. The

Green River Formation is further subdivided into several Member and local marker units. The cyclic nature of Green River deposition in the southern shore area resulted in numerous stacked, intertonguing deltaic and near-shore sand and silt deposits. Red alluvial shale and siltstone deposits that intertongue with the Green River sediments are of the Colton and Wasatch Formations. Under the Wasatch Formation is the Mesaverde Formation, which consists primarily of continental-origin deposits of interbedded shale, sandstone, and coal.

The geologic dip is about 200 feet per mile, and there are no known surface faults in this area. Veins of gilsonite, a natural resinous hydrocarbon occasionally mined as a resource, occurs in the greater Uintah Basin though it is predominantly found on the eastern margin of the basin near the Colorado border. Vertical veins, generally between 2 ft to 6 ft wide but up to 28 ft wide, may extend many miles in length and occasionally extend as deep as 2000 ft. In this area within the Greater Monument Butte Field there is one known gilsonite vein. This vein is not considered to present a pathway for migration of fluid out of the injection zone because it terminates at depth of about 2000 ft, far above the protective confining layer and much deeper injection zone. Newfield and the owner of this former gilsonite mine have agreed to conditions for operation near this vein to ensure no potential for impact to this vein or to ground water from enhanced oil recovery operations.

# TABLE 2.1 GEOLOGIC SETTING Federal 3-18-9-18

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Lithology
Uinta: USDW	12	502	< 10,000	Sand and shale.
Uinta	502	1,275		Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River	1,275	2,700		Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River: Trona	2,700	2,715		Evaporite
Green River: Mahogany Bench	2,715	2,750		Oil shale
Green River: Upper Shale Member	3,305	3,505		Shale.
Green River: Garden Gulch Member	3,505	4,450	26,088	Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River: Douglas Creek Member	4,450	5,500	26,088	Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.

# Proposed Injection Zone(s) (TABLE 2.2)

An injection zone is a geological formation, group of formations, or part of a formation that receives fluids through a well. The proposed injection zones are listed in TABLE 2.2.

Injection will occur into an injection zone that is separated from USDWs by a confining zone which is free of known open faults or fractures within the Area of Review.

The EPA approved interval for Class II enhanced recovery injection is located between the top of the Garden Gulch Member of the Green River Formation (3505 feet KB depth) and the top of the Wasatch Formation estimated to be at 5675 feet (KB depth).

# TABLE 2.2 INJECTION ZONES

Federal 3-18-9-18

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft) Porosit	y Exempted?*
Green River	4,450	5,500	26,088	0.690	N/A
* C - Currently Exempted E - Previously Exempted P - Proposed Exemption N/A - Not Applicable		<del>-</del>			

#### Confining Zone(s) (TABLE 2.3)

A confining zone is a geological formation, part of a formation, or a group of formations that limits fluid movement above the injection zone. The confining zone or zones are listed in TABLE 2.3.

The 200-foot (3305 - 3505 feet) shale Confining Zone overlies the top of the Garden Gulch Member.

# TABLE 2.3 CONFINING ZONES

Federal 3-18-9-18

Formation Name	Formation Lithology	Top (ft)	Base (ft)
Green River Shale	Shale.	3,305	3,505

# Underground Sources of Drinking Water (USDWs) (TABLE 2.4)

Aquifers or the portions thereof which contain less than 10,000 mg/l total dissolved solids (TDS) and are being or could in the future be used as a source of drinking water are considered to be USDWs. The USDWs in the area of this facility are identified in TABLE 2.4.

Throughout the Greater Monument Butte Field area undergoing enhanced oil recovery operations, water analyses of the Green River Formation generally exhibit total dissolved solids (TDS) content well in excess of 10,000 mg/l. However, some recent water analyses from the field showed lower TDS values closer to 10,000 mg/l. While rain and surface water recharge into Green River Formation outcrops further south along the Book Cliffs/Roan Cliffs in effect "freshens" the Green River Formation water near those outcrops, in this area of the Monument Butte Field the observed occasional 'freshening' is ascribed to the effective dilution of the originally in-place high TDS water from injection of relatively fresh water for enhanced oil recovery operations. Water samples from deeper Mesaverde Formation sands in the nearby Natural Buttes Unit yield highly saline water.

The State of Utah Division of Water Rights identifies no public water supply wells within the onequarter (1/4) mile Area-of-Review (AOR) around the Federal No. 3-18-9-18.

FINAL PERMIT

Technical Publication No. 92: State of Utah, Department of Natural Resources, cites the base of Underground Sources of Drinking Water (USDW) in the Uinta Formation approximately 502 feet from the surface. However, absent definitive information relative to the water quality of the Uinta Formation, from the depth of 502 feet to the base of the Uinta Formation (2700 feet), the EPA will require, during plugging and abandonment, a cement plug at the base of the Uinta Formation to protect contamination of possible Uinta USDWs.

# TABLE 2.4 UNDERGROUND SOURCES OF DRINKING WATER (USDW) Federal 3-18-9-18

Formation Name	Formation Lithology	Top (ft)	Base (ft)	TDS (mg/l)
Uinta	Sand and shale.	12	502	< 10,000

# PART III. Well Construction (40 CFR 146.22)

The Federal No. 3-18-9-18 was drilled to a total depth of 5750 feet (KB) in the Douglas Creek Member of the Green River Formation.

Surface casing (8-5/8 inch) was set at a depth of 315.47 feet in a 12-1/4 inch hole using 160 sacks of Class "G" cement which was circulated to the surface.

Production casing (5-1/2 inch) was set at a depth of 5750 feet (KB) in a 7-7/8 inch hole with 310 sacks of Premium Lite II mixed and 420 sacks of 50/50 POZ. This well construction is considered adequate to protect USDWs.

The EPA calculates the top of cement at 1019 feet from the surface. The Cement Bond Log (CBL) identifies top of cement at 130 feet. CBL analysis determined an 80% or greater cement bond along the entire 200 feet of Confining Zone.

The schematic diagram shows proposed enhanced recovery injection perforations in the Douglas Creek Member of the Green River Formation. Additional perforations may be added at a later time between the depths of 3505 feet (KB depth) and the top of the Wasatch Formation (Estimated to be 5675 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

The packer will be set no higher than 100 feet above the top perforation.

# TABLE 3.1 WELL CONSTRUCTION REQUIREMENTS

Federal 3-18-9-18

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
Surface	 12.25	8.63	12 - 303	12 - 303
Production	 7.88	5.50	3,303 - 5,563	130 - 5,565

The approved well completion plan will be incorporated into the Permit as APPENDIX A and will be binding on the Permittee. Modification of the approved plan is allowed under 40 CFR 144.52(a)(1) provided written approval is obtained from the Director prior to actual modification.

#### Casing and Cementing (TABLE 3.1)

The well construction plan was evaluated and determined to be in conformance with standard practices and guidelines that ensure well injection does not result in the movement of fluids into USDWs. Well construction details for this "new" injection well is shown in TABLE 3.1.

Remedial cementing may be required if the casing cement is shown to be inadequate by cement bond log or other demonstration of Part II (External) mechanical integrity.

#### **Tubing and Packer**

Injection tubing is required to be installed from a packer up to the surface inside the well casing. The packer will be set above the uppermost perforation. The tubing and packer are designed to prevent injection fluid from coming into contact with the outermost casing.

#### **Tubing-Casing Annulus (TCA)**

The TCA allows the casing, tubing and packer to be pressure-tested periodically for mechanical integrity, and will allow for detection of leaks. The TCA will be filled with fresh water treated with a corrosion inhibitor or other fluid approved by the Director.

The tubing-casing annulus must be kept closed at all times so that it can be monitored as required under conditions of the Permit.

#### **Monitoring Devices**

The permittee will be required to install and maintain wellhead equipment that allows for monitoring pressures and providing access for sampling the injected fluid. Required equipment may include but is not limited to: 1) shut-off valves located at the wellhead on the injection tubing and on the TCA; 2) a flow meter that measures the cumulative volume of injected fluid; 3) fittings or pressure gauges attached to the injection tubing and the TCA for monitoring the injection and TCA pressure; and 4) a tap on the injection line, isolated by shut-off valves, for sampling the injected fluid.

All sampling and measurement taken for monitoring must be representative of the monitored activity.

# PART IV. Area of Review, Corrective Action Plan (40 CFR 144.55)

# TABLE 4.1 AOR AND CORRECTIVE ACTION

Well Name	Туре	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
Federal 4-18-9-18	Other	No	6,181	12	Yes

TABLE 4.1 lists the wells in the Area of Review ("AOR") and shows the well type, operating status, depth, top of casing cement ("TOC") and whether a Corrective Action Plan ("CAP") is required for the well.

#### **Area Of Review**

Applicants for Class I, II (other than "existing" wells) or III injection well Permits are required to identify the location of all known wells within the injection well's Area of Review (AOR) which penetrate the injection zone, or in the case of Class II wells operating over the fracture pressure of the formation, all known wells within the area of review that penetrate formations which may be affected by increased pressure. Under 40 CFR 146.6 the AOR may be a fixed radius of not less than one quarter (1/4) mile or a calculated zone of endangering influence. For Area Permits, a fixed width of not less than one quarter (1/4) mile for the circumscribing area may be used.

#### **Corrective Action Plan**

For wells in the AOR which are improperly sealed, completed, or abandoned, the applicant shall develop a Corrective Action Plan (CAP) consisting of the steps or modifications that are necessary to prevent movement of fluid into USDWs.

The CAP will be incorporated into the Permit as APPENDIX F and become binding on the permittee.

# PART V. Well Operation Requirements (40 CFR 146.23)

	INJECTIO	TABLE 5.1 N ZONE PRESSU ederal 3-18-9-18	RES	
Formation Name	a de la composición dela composición de la composición de la composición dela composición dela composición dela composición de la composición de la composición dela com	Depth Used to Calculate MAIP (ft)	Fracture Gradient (psi/ft)	Initial MAIP (psi)
Green River		4,746	0.690	1,185

#### Approved Injection Fluid

The approved injection fluid is limited to Class II injection well fluids pursuant to 40 CFR § 144.6(b). For disposal wells injecting water brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production, the fluid may be commingled and

the well used to inject other Class II wastes such as drilling fluids and spent well completion, treatment and stimulation fluid. Injection of non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes, and vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste, is prohibited.

The proposed injectate will be a blend of drinking-quality water from the Johnson Water District supply line and/or water from the Green River supply line, as well as Green River Formation water from wells proximate to the Federal No. 3-18-9-18 and mixed at the Beluga Injection Facility.

# **Injection Pressure Limitation**

Injection pressure, measured at the wellhead, shall not exceed a maximum calculated to assure that the pressure used during injection does not initiate new fractures or propagate existing fractures in the confining zones adjacent to the USDWs.

Please note that EPA made minor corrections to Appendix B of the Draft Permit to remove unnecessary testing requirements related to the MAIP.

The applicant submitted injection fluid density and injection zone data which was used to calculate a formation fracture pressure and to determine the maximum allowable injection pressure (MAIP), as measured at the surface, for this Permit.

TABLE 5.1 lists the fracture gradient for the injection zone and the approved MAIP, determined according to the following formula:

$$FP = [fg - (0.433 * sg)] * d$$

FP = formation fracture pressure (measured at surface)

fg = fracture gradient (from submitted data or tests)

sg = specific gravity (of injected fluid)

d = depth to top of injection zone (or top perforation)

# **Injection Volume Limitation**

Cumulative injected fluid volume limits are set to assure that injected fluids remain within the boundary of the exempted area. Cumulative injected fluid volume is limited when injection occurs into an aquifer that has been exempted from protection as a USDW.

There will be no restrictions on the cumulative volume or daily volume of authorized Class II fluid to be injected into the approved Green River Formation Interval. The Permittee shall not exceed the maximum authorized injection pressure.

# Mechanical Integrity (40 CFR 146.8)

An injection well has mechanical integrity if:

1. there is no significant leak in the casing, tubing, or packer (Part I); and

2. there is no significant fluid movement into a USDW through vertical channels adjacent to the injection well bore (Part II).

The Permit prohibits injection into a well which lacks mechanical integrity.

The Permit requires that the well demonstrate mechanical integrity prior to injection and periodically thereafter. A demonstration of mechanical integrity includes both internal (Part I) and external (Part II). The methods and frequency for demonstrating Part I and Part II mechanical integrity are dependent upon well-specific conditions as explained below.

Well construction and site-specific conditions dictate the following requirements for Mechanical Integrity (MI) demonstrations:

PART I MI: Internal MI will be demonstrated prior to beginning injection. Because this well is constructed with a standard casing, tubing, and packer configuration, a successful mechanical integrity test (MIT) is required to take place at least once every five (5) years. A demonstration of Part I MI is also required prior to resuming injection following any workover operation that affects the casing, tubing, or packer. Part I MI may be demonstrated by a standard tubing-casing annulus pressure test using the maximum permitted injection pressure or 1000 psi, which ever is less, with a ten (10) percent or less pressure loss over thirty (30) minutes.

# PART VI. Monitoring, Recordkeeping and Reporting Requirements

# **Injection Well Monitoring Program**

At least once a year the permittee must analyze a sample of the injected fluid for total dissolved solids (TDS), specific conductivity, pH, and specific gravity. This analysis shall be reported to EPA annually as part of the Annual Report to the Director. Any time a new source of injected fluid is added, a fluid analysis shall be made of the new source.

Instantaneous injection pressure, injection flow rate, cumulative fluid volume and TCA pressures must be observed on a weekly basis. A recording, at least once every thirty (30) days, must be made of the injection pressure, annulus pressure, monthly injection flow rate and cumulative fluid volume. This information is required to be reported annually as part of the Annual Report to the Director.

# PART VII. Plugging and Abandonment Requirements (40 CFR 146.10)

# Plugging and Abandonment Plan

Prior to abandonment, the well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs, and in accordance with any applicable Federal, State or local law or regulation. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.6 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. Within sixty (60) days after plugging the owner or operator shall submit Plugging Record (EPA Form 7520 13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. The plugging and abandonment plan is described in Appendix E of the Permit.

The well shall be plugged in a manner that isolates the injection zone and prevents the movement of fluid into or between USDWs and in accordance with other applicable Federal, State or local law or regulation. Tubing, packers, and any downhole apparatus shall be removed. Class A, C, G, and H cements, with additives such as accelerators and retarders that control or enhance cement properties, may be used for plugs. However, volume extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. Within sixty (60) days after plugging, the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. At a minimum, the following plugs are required:

PLUG NO. 1: Seal the Injection Zone: Set a cast iron bridge plug (CIBP) no more than 50 feet above the top perforation. Place at least 20 feet of cement plug on top of the CIBP.

PLUG NO. 2: Seal the Mahogany Shale and Trona intervals: Perforate and squeeze a cement plug up the backside of the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale from approximately 2650 to 2800 feet (KB) unless pre-existing backside cement prevents cement-squeezing this interval. Set a minimum 150-foot balanced cement plug inside the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale, approximately 2650 to 2800 feet (KB). Both the cement-squeeze and the plug must extend from a minimum of 50 feet above the top of the Trona-Bird's Nest to a minimum of 50 feet below the base of the Mahogany Shale.

PLUG NO. 3: Seal possible USDWs by isolating the Uinta Formation from the Green River Formation: Perforate and squeeze cement up the backside of the 5-1/2 inch casing from approximately 1225 to 1325 feet (KB) unless pre-existing backside cement prevents cement-squeezing this interval. Set a minimum 100-foot, balanced cement plug inside the 5-1/2 inch casing centered at the contact between the Uinta Formation and the Green River Formation at 1275 feet (KB). Both the cement-squeeze and the plug should extend from a minimum of 50 feet above the contact at 1275 feet (KB) to a minimum of 50 feet below the contact at 1275 feet.

PLUG NO.4: Seal surface casing: Set a Class "G" cement plug within the 5-1/2 inch casing to 552 feet and up the 5-1/2 inch by 8-5/8 inch casings annulus to the surface.

See Schematic Diagram.

# PART VIII. Financial Responsibility (40 CFR 144.52)

Financial Statement that has been reviewed and approved by the EPA.

Financial Statement received April 22, 2005.

## **Demonstration of Financial Responsibility**

The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or other adequate assurance such as financial statements or other materials acceptable to the Director. The Regional Administrator may, on a periodic basis, require the holder of a lifetime permit to submit a revised estimate of the resources needed to plug and abandon the well to reflect inflation of such costs, and a revised demonstration of financial

responsibility if necessary. Initially, the operator has chosen to demonstrate financial responsibility with:

Financial Statement, received April 22, 2005

Evidence of continuing financial responsibility is required to be submitted to the Director annually.

Permit UT21155-07854 14 FINAL PERMIT Statement of Basis

# **APPENDIX A**

# WELL CONSTRUCTION REQUIREMENTS

See diagram.

The Federal No. 3-18-9-18 was drilled to a total depth of 5750 feet (KB) in the Douglas Creek Member of the Green River Formation.

Surface casing (8-5/8 inch) was set at a depth of 315.47 feet in a 12-1/4 inch hole using 160 sacks of Class "G" cement which was circulated to the surface.

Production casing (5-1/2 inch) was set at a depth of 5750 feet (KB) in a 7-7/8 inch hole with 310 sacks of Premium Lite II mixed and 420 sacks of 50/50 POZ. This well construction is considered adequate to protect USDWs.

The EPA calculates the top of cement at 1019 feet from the surface. The Cement Bond Log (CBL) identifies top of cement at 130 feet. CBL analysis determined an 80% or greater cement bond along the entire 200 feet of Confining Zone.

The schematic diagram shows proposed enhanced recovery injection perforations in the Douglas Creek Member of the Green River Formation. Additional perforations may be added at a later time between the depths of 3505 feet (KB depth) and the top of the Wasatch Formation (Estimated to be 5675 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

The packer will be set no higher than 100 feet above the top perforation.

# Federal 3-18-9-18

effr.

Spud Date: 15-43-05 Inisia: Production: 14(1P), Pur on Production: 11-28-05 MOTO, DWID Proposed Injection Wellbore Diagram CIL: 3000" KIB: 51.02" FRAC JOB HOLAS GARGARY From CNA in robusta lichorea. 280236 2224-1916 v. 836 basel ghistig (? tre this. Training any arm of 500 per companies of ALA HIPPS TAR 1400 per than from \$400 per Armel Nove 5 97 ger Constitution of 1909 SURFACE CASING SOZ KB COSG \$128; 5-500 Peac CF1, & CF2 condess follows 1 4 3 900 1925 (政制施 基础 erner Cet, de and an damen an erner (1965). The Medical Medical Cet (1965) and the Cet (1 BATE USDA ES WEIGHT, 248 up Greek River LIMBTIC TAK(131 68') 1275 DESTRILANDED, 215 -T KB from A.C., de A.C. and the use follower (Notice 25%) and in 1920 feld Ligaring (\*) the find. Treated Many green recognizing whose consected 4. 1984 5.18 (\*) (\*) (\*) (\*) 10.4. 40% fol. American 4.541 gai. 11.21.08 5065.2000° SIGNE SEEDINGS CENTRY DATA: 160 pas tiku "G" cere og at lida enevo mil Trong Brys Rott PRODUCTION CASING Proper US consider of Indianes: 2. Delay 12:000 used for 60 third Dispressing, 67 for Julial Franklating and property 1923 and may respect 60 to 1920 1 1920 1 1920 per found-of 1940 persional charles 4600 and CAC SIZE 2-1/2" SKABE ISS M. Dronpay Brich WEIGHT 1558 Top 2415' LSMCTTH: 35 (8552.06) DEPTH LANDERS MACHINE 3305 Top Granton Strake Confining Dane 3305-3505' 3505 Top Govter Gallet (SOLE BIZE: 7-AW) CHMENT DRIVE THE SHOW HOW LITE IT SPEED & 430 MR 1999 INTO CEMENT TOP AT: 33° KO", BN 3305 - 350 9 SIZEGERALBYWY GARTY ABSOROW NO. OF YORKES, 170 July (SOUTH SET). SUSSESSE AND HOLE SOME NO REI MIXIO KUNTO CO (LOS) SEALONE SITULE 2-WOLL CO ER LANDED AT SELECT RE NO OF KIRTH SEC 02321 Peaker (\$441) TO DELL'STANDE LONGONE HIST QUI SOU STEEN 4045-43551 PERFORATION RECEIVED 4045.5453 4982-4442 H-11-08 -5470-5460 5-4480F 30 k-lea 11-21-08 5)19-355 4:52F 2:11-ks H-21-48 188-828 4.391 361-42 5250 11-21-16 3393-2007 4:524 27 toka 11.01.65 (003.260) 4/80f 291:3ks 11-21-05 45M-4780 4.831 191-340 2019-0005 Total Cab externs? Section 194 NEWFIELD PETO MESSIE SHOLE SHOW Federal 3-18-9-18 TO S 5753 662" FML & 1982" FAIL

N. 45-33

UT21155-07854 well construction.bmp

VICANO Serien 18-155-8136 Uminh Co, Umb API 643-042-35381, Janus (UTU)-39314

## **APPENDIX B**

# LOGGING AND TESTING REQUIREMENTS

## Logs.

Logs will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well logging required as a condition of this permit.

# **NO LOGGING REQUIREMENTS**

#### Tests.

Tests will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well test required as a condition of this permit.

TYPE OF TEST	DATE DUE
Pore Pressure	Prior to receiving authorization to begin injection
Standard Annulus Pressure	Prior to receiving authorization to inject and at least once every five (5) years after the last successful demonstration of Part I mechanical integrity

# **APPENDIX C**

# **OPERATING REQUIREMENTS**

#### **MAXIMUM ALLOWABLE INJECTION PRESSURE:**

Maximum Allowable Injection Pressure (MAIP) as measured at the surface shall not exceed the pressure(s) listed below.

	MAXIMUM ALLOWED INJECT	TION PRESSURE (psi)
WELL NAME	ZONE 1 (Upper)	ZONE 2 (Lower)
Federal 3-18-9-18	1,185	1,185

#### **INJECTION INTERVAL(S):**

Injection is permitted only within the approved injection interval listed below. Injection perforations may be altered provided they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6. Specific injection perforations can be found in Appendix A.

WELL NAME: Federal 3-18-9-18		·	
ě	• • • • • • • • •	D INJECTION /AL (KB, ft)	FRACTURE GRADIENT
FORMATION NAME	TOP	BOTTOM	(psi/ft)
Green River	4,450.00	- 5,500.00	0.690

#### **ANNULUS PRESSURE:**

The annulus pressure shall be maintained at zero (0) psi as measured at the wellhead. If this pressure cannot be maintained, the Permittee shall follow the procedures listed under Part II, Section C. 6. of this permit.

## **MAXIMUM INJECTION VOLUME:**

There is no limitation on the number of barrels per day (bbls/day) of water that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Appendix C.

## **APPENDIX D**

# MONITORING AND REPORTING PARAMETERS

This is a listing of the parameters required to be observed, recorded, and reported. Refer to the permit Part II, Section D, for detailed requirements for observing, recording, and reporting these parameters.

OBSERVE I	MONTHLY AND RECORD AT LEAST ONCE EVERY THIRTY DAYS
	Injection pressure (psig)
OBSERVE AND RECORD	Annulus pressure(s) (psig)
	Injection rate (bbl/day)
	Fluid volume injected since the well began injecting (bbls)

	ANNUALLY	
	Injected fluid total dissolved solids (mg/l)	
ANALYZE	Injected fluid specific gravity	. 4
	Injected fluid specific conductivity	
	Injected fluid pH	

ANNUALLY	
REPORT	Each month's maximum and averaged injection pressures (psig)
	Each month's maximum and minimum annulus pressure(s) (psig)
	Each month's injected volume (bbl)
	Fluid volume injected since the well began injecting (bbl)
	Written results of annual injected fluid analysis
	Sources of all fluids injected during the year

In addition to these items, additional Logging and Testing results may be required periodically. For a list of those items and their due dates, please refer to APPENDIX B - LOGGING AND TESTING REQUIREMENTS.

#### APPENDIX E

# PLUGGING AND ABANDONMENT REQUIREMENTS

The well shall be plugged in a manner that isolates the injection zone and prevents the movement of fluid into or between USDWs and in accordance with other applicable Federal, State or local law or regulation. Tubing, packers, and any downhole apparatus shall be removed. Class A, C, G, and H cements, with additives such as accelerators and retarders that control or enhance cement properties, may be used for plugs. However, volume extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. Within sixty (60) days after plugging, the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. At a minimum, the following plugs are required:

PLUG NO. 1: Seal the Injection Zone: Set a cast iron bridge plug (CIBP) no more than 50 feet above the top perforation. Place at least 20 feet of cement plug on top of the CIBP.

PLUG NO. 2: Seal the Mahogany Shale and Trona intervals: Perforate and squeeze a cement plug up the backside of the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale from approximately 2650 to 2800 feet (KB) unless pre-existing backside cement precludes cement-squeezing this interval. Set a minimum 150-foot balanced cement plug inside the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale, approximately 2650 to 2800 feet (KB). Both the cement-squeeze and the plug must extend from a minimum of 50 feet above the top of the Trona-Bird's Nest to a minimum of 50 feet below the base of the Mahogany Shale.

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PLUG NO.4: Seal surface casing: Set a Class "G" cement plug within the 5-1/2 inch casing to 552 feet and up the 5-1/2 inch by 8-5/8 inch casings annulus to the surface.

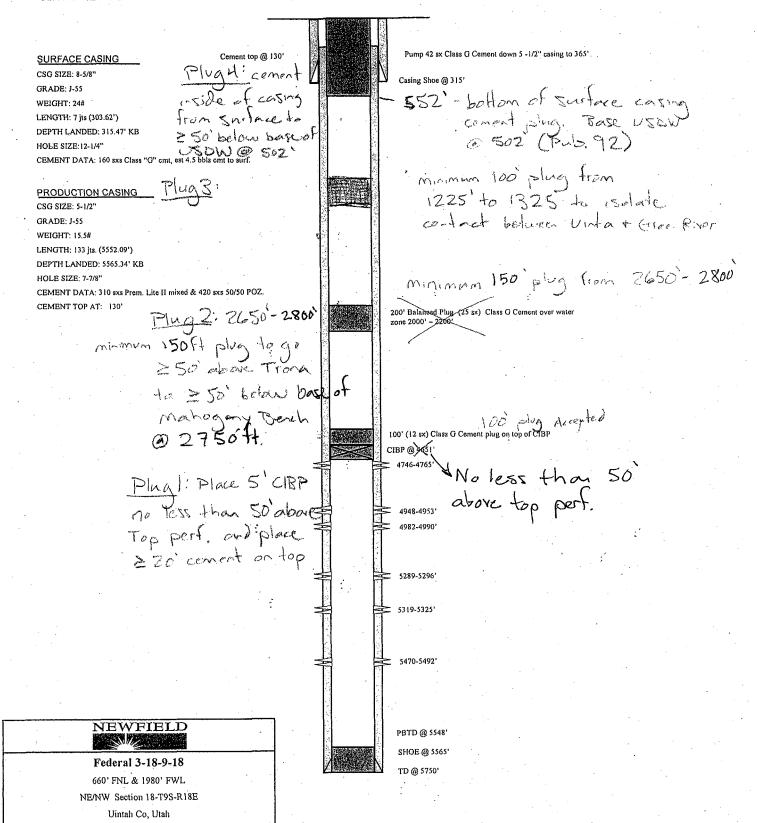
See Schematic Diagram.



# Federal 3-18-9-18

Spud Date: 10-03-05 Put on Production: 11-28-05 GL: 5090' KB: 5102'

Proposed P & A Wellbore Diagram



API #43-047-35581; Lease #UTU-39714

# **APPENDIX F**

# CORRECTIVE ACTION REQUIREMENTS

The Federal No. 4-18-9-18 will be monitored weekly at the surface for evidence of fluid movement out of the injection zone.

In addition, Newfield developed a corrective action monitoring program, effective July 10, 2008, entitled "Procedure related to proposed Class II Enhanced Oil Recovery Injection Wells determined by the EPA to have specific Area of Review (AOR) wells with inadequate cement across the Confining Zone."

If possible fluid movement out of the injection zone is identified, either through the weekly monitoring, through Newfield's July 10, 2008 procedure described above, or through any other means (for example, evidence of fluid flow or increased bradenhead annulus pressure readings, tubing-casing annulus pressure readings, or other evidence of a mechanical integrity failure), the Permittee will shut in the Federal No. 3-18-9-18 immediately and notify the Director. No injection into the Federal No. 3-18-9-18 will be permitted until the Permittee has notified the Director that the situation has been resolved, submitted Rework Records (EPA Form No 7520-12) and a schematic diagram, and received authorization from the Director to re-commence injection.